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Educational News and Editorial Comment

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A New Estimate of Income Distribution in the United States

Students of social conditions will welcome the appearance of another timely publication of the National Resources Committee which bears the title *Consumer Incomes in the United States—Their Distribution in 1935–36*. The first and perhaps the most significant part of the study presents a picture, on a broad national basis, of the division of income among the American people. The second part contains estimates of incomes received by various groups composing the total population, for example, families living in the different regions of the country, families living in rural and urban communities, white and negro families, single persons, and residents of institutions. Readers are cautioned to keep in mind that these estimates of income are expressed in terms of dollars and cents and not in terms of real income. It was not possible to adjust dollar figures to allow for differences in costs of living in different communities, for differences in modes of living of various population groups, for differences in the number of persons dependent on the income, or for differences in the needs of individuals.

Income distribution on a national basis.—Approximately 91 per cent of the nation's consumers are members of families consisting of

two or more persons. In 1935–36, 14 per cent of all families received less than $500; 42 per cent received less than $1,000; 65 per cent, less than $1,500; and 87 per cent, less than $2,500. About 10 per cent of all families received incomes ranging from $2,500 to $5,000; 2 per cent received incomes from $5,000 to $10,000; and only 1 per cent had incomes of $10,000 or more. The 42 per cent of the families with incomes of less than $1,000 received less than 16 per cent of the total national income; the 3 per cent with incomes of $5,000 and over accounted for 21 per cent of the total; and the 1 per cent having incomes of $10,000 and over received a little over 13 per cent of the aggregate.

Of the 10,000,000 single men and women included in the total consumer population, 45 per cent received less than $750; 61 per cent, less than $1,000; and 95 per cent, less than $2,500.

A more comprehensive picture of the distribution of the national income is secured by considering families and single persons together as consumer units. Of the 39,000,000 consumer units comprising the total population, the poorest tenth, with incomes under $340, received less than 2 per cent of the aggregate income. The second tenth, with incomes ranging from $340 to $545, received 3 per cent of the estimated national total. The 10 per cent of the families and individuals receiving the highest incomes ($2,600 and over) received 36 per cent of the aggregate income—about as much as the 70 per cent at the bottom of the scale. The highest 5 per cent received almost as much income as the lowest 60 per cent, and the highest 1 per cent received only a trifle less than the lowest 40 per cent.

Regional differences in family incomes.—Diverse economic conditions in the various sections of the United States naturally result in striking regional differences in family incomes. These differences are shown in Table 1. These figures should be interpreted with some caution, as is suggested in the following quotation.

> It must be remembered in interpreting these differences that the averages are affected by the concentration of very high incomes among families living in large cities, and that these families are relatively more numerous in the New England, North Central, and Pacific states. It must also be borne in mind that the averages for the South, and for the Mountain and Plains Region as well, are

weighted by a relatively large proportion of farm families. Furthermore, it should be recalled that costs of living differ from one part of the country to another, and also that the comparison is for a particular twelve-month period in 1935 and 1936. Any abnormal conditions during that period, such as the drought and wheat rust in the Mountain and Plains area, are reflected in the estimates.

Rural-urban differences in family incomes.—Estimates of the distribution of income among non-relief families in communities of different size are presented in Table 2. The incomes received by

TABLE 1

AVERAGE INCOMES OF FAMILIES IN FIVE GEOGRAPHIC REGIONS BASED ON SAMPLE DATA, 1935–36

GEOGRAPHIC REGION	AVERAGE INCOME PER FAMILY			
	Median		Mean	
	All Families	Non-relief Families	All Families	Non-relief Families
New England	$1,230	$1,365	$1,810	$2,011
North Central	1,260	1,410	1,786	1,973
South	905	985	1,326	1,431
Mountain and Plains	1,040	1,220	1,363	1,537
Pacific	1,335	1,485	1,775	1,937

farm families, it will be noted, are materially less than those received by families living in villages, towns, and cities. The mean income of farm families is $1,259 compared with a mean income of $1,607 in village communities with populations of less than 2,500 or a mean income of $2,704 in cities with populations of 1,500,000 or over. It is a striking fact that non-relief families living in cities of a million and a half or more people (New York, Chicago, Philadelphia, and Detroit) constitute about 11 per cent of the total number of non-relief families of the nation and receive 17 per cent of the aggregate national income, while farm families account for about 25 per cent of the total and receive 17.5 per cent of the aggregate estimated income. In other words, approximately as much income is received by families living in New York, Chicago, Philadelphia, and Detroit as by all farm families in the United States. As already pointed out,

these are estimates of dollar rather than real income, but in the calculation of farm income allowance was made for the value of food produced at home for the family's own use.

TABLE 2

AVERAGE AND AGGREGATE INCOMES OF NON-RELIEF FAMILIES IN SIX TYPES OF COMMUNITY, 1935–36

TYPE OF COMMUNITY	AVERAGE NUMBER OF PERSONS PER FAMILY	AVERAGE INCOME PER FAMILY		AGGREGATE INCOME
		Median	Mean	Per Cent
Metropolises (1,500,000 population and over)	3.5	$1,730	$2,704	17.1
Large cities (100,000 to 1,500,000 population)	3.5	1,560	2,177	22.9
Middle-sized cities (25,000 to 100,000 population)	3.7	1,360	1,813	10.7
Small cities (2,500 to 25,000 population)	3.7	1,290	1,653	15.2
All urban communities	3.6	$1,475	$2,064	65.9
Rural non-farm communities	3.7	$1,210	$1,607	16.6
Farms	4.5	965	1,259	17.5
All rural communities	4.2	$1,070	$1,408	34.1
All communities	3.8	$1,285	$1,781	100.0

A UNIQUE CONTRIBUTION TO THE PROGRAM OF READING INSTRUCTION

TEACHERS, supervisors, and superintendents will welcome the appearance of a bulletin published by the California State Department of Education which bears the title *The Vocabularies and Contents of Elementary School Readers.* It was prepared by John A. Hockett, assistant professor of education at the University of California, and was designed as a guide in the selection and the use of reading materials. The first part of the bulletin is devoted to a detailed analysis of the vocabularies of preprimers, primers, and readers; the second part contains elaborate indexes to the content of a large number of primers and readers. The following passage quoted from the Preface indicates the purposes and scope of the publication.

Every teacher in the elementary school has available an extensive or a limited supply of more or less suitable reading books. Whatever the situation, the teacher's problem is continuously that of using most effectively, with many different pupils and for a variety of purposes, the books that are available. A related problem which arises at intervals is that of making a wise choice of new materials to supplement or replace the books previously in use. As schools emerge from the era of the single basic textbook into an era of many books, the number and variety of available reading materials are both greatly increased, and the need for guidance in the selection and use of these many books becomes more urgent.

The first purpose of this bulletin is to present detailed, comparative evidence on the relative vocabulary burden and difficulty of a large number of commonly used readers in the primary grades, so that the various books may be selected and used more wisely and effectively. A tremendous amount of time and energy has been expended in making the data accurate and fair to all of the books included. The figures presented often differ slightly from those reported by other investigators or by the publishers. Such discrepancies are generally due to differences in the rules followed by different investigators. A rigorous attempt has been made to avoid errors and to be consistent in dealing with the various books on each level. The writer has no intention of favoring certain books or of discrediting others. The desire, as stated above, is to further the more skilful use of the various books at hand.

A second purpose is to help teachers guide the reading of children along various lines of interest or need. As teachers organize the work of a class or a group around centers of interest or units of work, they need to be able to refer children to much reading material related to the chosen interest. At various times there is also need for one or more selections about a particular person, place, or event. It may be a poem about the stars, an episode from the life of Lincoln, or a story about maple sugar. The classification of material on a variety of topics on each level from primer to sixth reader, in a large number of series, is presented in Part II to help teachers throughout the elementary school in using the material in the readers which they have available as it may be needed in various classroom situations. Although the material is classified in seven indexes corresponding to the grade levels indicated for the various books, each teacher generally will be interested in two or more of the indexes. There are at least three reasons for this. There are always different abilities in any class of children. Every child can profitably read material that is simpler than that of his own grade level if it relates to a subject in which he is interested. As shown in the tables of vocabulary difficulty, the grade designation of a book does not necessarily indicate that it is more difficult than all books designated for a lower grade or easier than all books labeled for a higher grade.

Supervisors, administrators, textbook committees, and others will find the data on content and difficulty useful in their consideration, selection, and recommendation of books.

Here and There among the Schools

THE items selected for reporting in this issue of the *Elementary School Journal* relate to the improvement of reading in the upper grades, curriculum planning in a city school system, a new system of child accounting, an experiment in education by radio, instruction in courtesy, and a plan for keeping teachers and parents informed with respect to the work and the problems of the schools.

Remedial reading at the junior high school level For a number of years teachers in the upper grades of the elementary school, and in the high school as well, have become increasingly sensitive to the fact that many of their pupils are seriously handicapped because of inability to read effectively. The remedy lies in part, of course, in the development of better methods of teaching reading in the lower grades, but, while this improvement is being made—and even afterward perhaps—many pupils will reach the upper grades more or less functionally illiterate. It is entirely indefensible to subject these pupils to a program requiring a reading ability which they do not possess. Either a way must be found to educate pupils who cannot read, or a method must be devised to teach reading in the upper grades and in the high school.

Luckily, this problem of teaching older pupils to read effectively is being attacked in many schools throughout the country. One of the most promising plans that have come to our attention is being carried out in the Roosevelt Junior High School, Aberdeen, South Dakota. The plan is described at length in a mimeographed bulletin of 138 pages which was sent to us by Superintendent Charles J. Dalthorp. The bulletin was prepared by C. P. Stinson, principal of the junior high school, with the assistance of his staff of teachers, and is published under the title "A Remedial Reading Program for the Junior High School."

During 1936–37 a project was initiated to determine the amount of retardation in reading in Grades VII, VIII, and IX and to develop a constructive remedial program. The whole report describing the project is of interest, but teachers will find the fourth and the fifth chapters particularly helpful. The fourth chapter, entitled "Suggestions for Remedial Procedures," presents an analysis of the

procedures used in English, the social studies, mathematics, general science, home economics, and the industrial arts. In the fifth chapter, "Instructional Units in Remedial Reading," the problem is attacked from another angle; a large number of units are developed which are designed to improve ability to read quite apart from subject-matter fields. Among the units developed in this section of the report are the following: unit on the use of books, unit to improve interpretation and comprehension, unit designed to increase rate of reading, and an appreciation unit for Grade IX. In the development of each unit, attention is given to objectives, suggestions, activities, materials, and checking.

Planning the curriculum in a public-school system From Superintendent Paul J. Misner, Glencoe, Illinois, we have received a bulletin of some 170 pages which bears the title "A Guide for Curriculum Planning." The bulletin is described as "a co-operative study of educational policies and procedures, designed to facilitate the growth and development of children within their environment." The content is organized under the following major topics: "The Frame of Reference," "A Design for Living," "The Major Integrative Theme," "Functions of the Social Heritage," "Guidance and Evaluation," and "Toward Community Education." The curriculum outlines presented here reveal vividly and in detail the kinds of activities being carried on in the Glencoe schools. The publication should be of interest to curriculum builders everywhere and especially to those who are working out a program "designed to help bring about wholesome correlation and to break down the artificial subject-matter barriers which have been set up by departmentalization." The price of the bulletin is two dollars.

New system of child accounting in New York New York City has adopted a new plan of reporting pupil progress and a new type of permanent record card which will be employed generally throughout the school system for the first time this autumn. The report card provides for detailed information concerning the pupil's progress in citizenship training, showing whether he is developing desirable traits. It will also indicate the

progress that the pupil is making in his studies and will contain suggestions for needed improvement. An important feature of the report is the school's estimate of whether the pupil is progressing as rapidly as his ability indicates he should.

The new record card is cumulative and is so designed that a single card will serve a pupil throughout his school career. It provides for the recording of information about the social background of the child, his personality, mental ability, achievement in standardized tests, special interests, aptitudes, and the like.

An experiment in education by radio in Cleveland

Nation-wide interest attaches to the experiment which is now being made in the use of the radio in the schools of Cleveland, Ohio. The experiment has been made possible by a grant from the General Education Board. A broadcasting studio has been installed in the administration building, and each school is equipped with a receiving set. The purpose of the experiment is to test new techniques and to try out new ideas. The program to be put into operation is described in the *Christian Science Monitor* as follows:

> Before the end of the term, school officials expect to add programs for junior and senior high school students, which will be largely pioneering work. They also are considering such things as biographical presentations, lessons in vocabulary building, spelling contests, quiz bees, current events, historical dramatizations, reading of poetry, working pupil activity into the school radio, use of the station for adult classes in the evening, and broadcasting of talks by nationally known people visiting Cleveland.
>
> The real experimental phases, however, will be attempted gradually, for the school executives directing the station believe it unwise to "try everything at once." The greatest emphasis will be placed on developing classroom broadcasts that will fit directly into the regular course of study, rather than being supplemental. In this way, the radio programs virtually will become the curriculum in action, a method in which the Cleveland use of school radio differs from that in most other cities.

Instruction in courtesy a worth-while addition to public-school curriculum

W. E. Sheffer, superintendent of schools at Manhattan, Kansas, has supplied us with the following statement describing a program of instruction in courtesy which he initiated in his schools last year and which is being continued in the current year.

One of the major projects of the year was instruction in courtesy and the placing of special emphasis upon courteous conduct. Early in the school year a meeting was held of principals, representatives of the units of the parent-teacher organizations and teacher sponsors of various groups in the schools to plan for the development of a desirable and effective program for instructing the pupils in the elements of courtesy and in the practice of courteous conduct not only in their school relations but in all their relations with other persons.

All the teachers gave special attention to the subject throughout the year, and, as a result, evident and measurable results were achieved as reported by parents and teachers. In May a second meeting was held of those persons who had attended the fall meeting. The reports of achievement made by the different members of the group were altogether gratifying. While the results of instruction in such a subject cannot be measured in the same manner as can those deriving from most academic subjects, there can be many evidences of the effectiveness or failure of the instruction. It is believed that the project was highly worth while as shown in the improved conduct of many of the pupils.

Facts about the schools for teachers and parents Good administration requires that both teachers and parents be kept informed about the educational system—its purposes, program, organization, personnel, financial support, and other matters. V. L. Beggs, superintendent of schools in Elmhurst, Illinois, is accomplishing these ends in an effective way through two publications which are sent to teachers and parents at regular intervals. "The Interlocutor," a mimeographed bulletin of some eight pages, is sent to teachers about every two weeks. It contains a great variety of information about such matters as the schools' financial status, curriculum and research, teachers, professional notes, radio programs for schools, and the like. The second bulletin, entitled "Your Child in School," is sent to parents three or four times a year. It serves as an organ for keeping parents informed with respect to the policies and the practices of the schools.

Educational Program of the Tennessee Valley Authority

Newspaper accounts of the work of the Tennessee Valley Authority might lead one to suppose that it is a "giant organization" designed primarily to provide cheap power and light to the people of the valley area. The better informed reader, however, is aware that the Authority is also concerned with such matters as

flood control, navigation, soil conservation—in short, with an economic and social program which looks to the improvement of the quality of individual living in the whole region. Relatively few persons are aware of the really significant educational program which the Authority is undertaking to implement. This program is described in detail in a recently published bulletin of the Bureau of School Service, College of Education, University of Kentucky. The bulletin is edited by Maurice F. Seay and bears the title *Adult Education: A Part of a Total Educational Program.* The following paragraph is quoted from an introductory statement by Frank L. McVey, president of the University of Kentucky.

> My interest in the papers brought together in this bulletin arises out of the fact that one of the best things the T.V.A. has done and one to which little attention has been given is the educational program which it has set up. If this program were the ordinary one that is typical of town or country school systems, I should not be much interested, but what has been done, described in this bulletin, is a real contribution to education. . . . . The fact that the Authority did not follow conventional procedures in working out an educational and recreational program has been of great benefit, not only to the Authority and the people in the area, but the experience gained has done much for any administrator, teacher, and citizen who is interested in education. Hence this bulletin.

In at least one respect the educational work of the T.V.A. is unique in the history of American education. It represents the most extensive effort yet made to develop an integrated, co-ordinated educational program for all the members of a community—children as well as adults. The various educational agencies and activities to be found in the typical American community have never been satisfactorily co-ordinated. For example, adult education is commonly regarded as something separate from the general educational process; the school and the library have rarely or never succeeded in integrating their educational programs; the health service for children is seldom centralized in any one agency; and recreational interests and needs are met in a variety of ways and with little or no effort at co-ordination. The T.V.A. is attempting to develop a unified program in which the educational interests and needs of all the members of the community are given a place, and it is trying to work out a form of administrative organization which co-ordinates all the educational agencies of the community.

The general principles underlying this effort to bring unity and balance into the educational work of a community are discussed in the following passage quoted from the bulletin.

The conception that education is continuous is, of course, not new. However, the application of this conception to a planned program of education for all age levels of a community has seldom been attempted. Citizens hear and read much of the community's high-school program; somewhat less, perhaps, of a community's elementary school; occasionally something of the other educational services, such as the library, recreation, nursery school, and classes for adults. Almost never do they hear or read of the total educational program of the community—all of these regular and special phases of education so coordinated that the whole is a well-balanced and adequately supported program for children and adults.

The present program of education in most communities with many educational services functioning independently, receiving their support from varied sources, and being administered by unrelated agencies, reflects a confusion that exists in educational thought. The situation contains the unfortunate implications that education is not continuous and unified but that it is a matter of a little "bit" here and some more *there* and *there*—depending usually upon the individual aggressiveness of each of the educational agencies functioning in a community. This situation also implies that education is primarily academic and theoretical and has little, if any, relation to real, everyday, meaningful experiences. Thus subject matter and special educational services are departmentalized and isolated.

This confusion can be explained more easily by listing the various agencies which supply a part of the total educational experience of a life-cycle. The Sunday school, the W.P.A. or a private nursery school and kindergarten; the local public-school system with its elementary, junior, and senior high schools; the Scout organization; the Y.M.C.A.; the city recreation department; the city library; the public health unit—all frequently contribute to the unplanned education for an individual.

In the T.V.A. town of Norris, Tennessee, these separate agencies do not now exist. The community's total educational program is administered by a superintendent of education. The nursery school and kindergarten, the elementary and secondary schools, the recreational program, the public library, the health unit —all are parts of a planned program, receiving their support and their supervision from the same source through a combined budget. Space and equipment, time scheduling of classes and programs, staff allocations, etc., are carefully planned in this centralized administration. In this respect the Norris plan represents the ideal, but unfortunately it would be extremely difficult to inaugurate such an organization in a community where different agencies have become established and have become generally accepted parts of the social *status quo*. However, the local public-school system, the public library, or some other exist-

ing agency could expand its program to include some of these activities and could assume a leadership in developing and sponsoring procedures for co-ordination of the activities of the different agencies.

The experience of the T.V.A. and the agencies co-operating with it in attempting to secure a well-balanced and well-planned program of education for communities that are served by many agencies indicates that this leadership can more effectively come from the public-school system or the public library. The schools have the largest program, touch the greatest number of people, are staffed with trained persons, and are more likely to receive increased financial support. The library, as an indispensable service agency for all educational activities, is in a position to render a much larger service than at present and to accomplish, as an indirect result, much co-ordination of educational activities. The important problem, however, is not which agency will lead but rather how to get one agency at least to see and act upon the opportunity.

Education is continuous and thus it transcends administrative divisions. It demands, for most effective results, that the educational activities either be centralized in one agency or co-ordinated by the co-operative efforts of all agencies to the end that the confused situations of today be replaced by a planned, well-balanced, and adequately supported educational program for all age levels.

Help and Advice in Securing Films for Schools and Colleges

Announcement has been made of the establishment of a non-profit corporation to be known as the Association of School Film Libraries. The association is being financed by the General Education Board, and it will have its main offices in the Time and Life Building, 9 Rockefeller Plaza, New York City. The executive director is Fanning Hearon, who will be assisted by a board of directors composed of persons prominent in the field of visual education. Membership in the association will be limited to educational institutions and noncommercial distributors serving the educational field. For these members the association will obtain appraisals of films which are available or which could be made available. It will help members obtain films, but it will not itself produce films. It will be simply a helpful, impartial liaison unit between picture makers and picture users.

More specifically, the purposes of the association are stated as follows:

1. To act as a clearing-house for information on the production and distribution of educational films to schools and colleges.

2. To act as a central agent for the co-operative procurement of films for its members.

3. To compile standard catalogue materials on all films available for educational use.

4. To gather and relay to its members evaluations of films secured from various sources.

5. To open new sources of educational films.

6. To mobilize the purchasing power of the educational motion picture field in order to secure better production at a lower cost.

7. To serve as a liaison between educational motion picture makers and users.

8. To be the mouthpiece of the distributors and exhibitors, to speak for them in one voice.

The following advantages are claimed for membership in the association.

1. Through membership in the association all films can be ordered from one source instead of several.

2. The association will act as a clearing-house for information on motion pictures available separately from hundreds of organizations.

3. Films probably will be made available through the association which will not otherwise be released. For instance, films of the Commission on Human Relations of the Progressive Education Association cannot be distributed commercially, and the Progressive Education Association is not in a position to distribute them. Similarly, short subjects recommended for release by the educational advisory committee of the Motion Picture Producers and Distributors of America, Incorporated, probably will not be readily available for school use through commercial distributors nor through any other agency.

4. Individuals and institutions have little influence in getting desirable educational films produced and released, but collectively they can make themselves heard.

5. Through the association is available the collective experience of all its members in methods of selecting, previewing, and evaluating films.

6. If film users pool their orders, they can reduce the costs of distribution to producers and eventually effect a corresponding reduction in prices.

7. Through the association assistance will be given to institutions in the establishment of new film libraries, thus expanding the market. In this way future profitable production of educational motion pictures can be assured.

Superintendents and others who feel the need of assistance in obtaining films for use in the schools will also be interested in a pamphlet recently published by Teachers College, Columbia University. The pamphlet was prepared by Mary E. Townes and carries the

title *Teaching with Motion Pictures: A Guide to Sources of Information and Materials.* Part I, "The Educational Film as a Teaching Aid," contains annotated bibliographies on such topics as the following: basic books, research studies, periodicals, organizations and agencies, source list of distributors of educational films, and source list of educational films. Parts II and III are devoted, respectively, to "The Theatrical Film as an Educational Force" and "Making Motion Pictures in the School." The pamphlet should prove especially helpful to those who need a practical guide through the mazes of material on the motion picture in education, and it should serve, too, to suggest new paths to be explored.

A Report on Important Phases of Instruction in the Elementary School

For a number of years the State Education Department of New York has held an annual conference of supervisors and directors of instruction in elementary schools. The recently published "Report of Proceedings of the Fourth Annual Conference" has in it materials which should be of interest to elementary-school teachers and principals throughout the country. The report contains abstracts of the following committee reports: (1) "School-Home-Community Relationships," (2) "The Influence of Changing Conceptions of Education upon the Function and Organization of Supervision," (3) "Criterions for Determining the Success of the Elementary School," and (4) "Adaptations to the Needs of Superior Pupils."

An Example of Basic Material for Curriculum Revision

The school should seek to orientate the child in his environment, to cultivate in him an understanding of the time and place in which he is to grow and develop. It was with this end in view that the State Department of Public Instruction in Michigan had prepared a bulletin entitled *Michigan Today.* The bulletin is the third publication of major scope to appear in the Michigan program of curriculum revision. The two earlier publications were entitled *Instructional Guide for Elementary Schools* and *What Does Research Say?* The general purpose of *Michigan Today* is described in the Preface as follows:

In the preparation of this bulletin the authors have had one major purpose in view: to present clearly, simply, and accurately such facts concerning the physical and human resources of Michigan as will enable educators to adjust the school curriculum in the light of the implications these resources have for the education of children. To achieve this end the authors have described *Michigan Today* in such a way as to stimulate the understanding and imagination of the reader. It is hoped that the picture of Michigan here presented will give the reader impressions which will guide him in a choice of further studies of the resources of the state and their effect on education. An understanding of the social and economic status of Michigan with its educational implications will help to erect a series of guideposts for the construction of a new school curriculum.

Among the chapter titles are the following: "The Geological and Physical Features of Michigan," "Land and Forests," "Mineral Resources," "The People of Michigan," "The Family," "The Community," "The Government," "Transportation and Communication," "Unemployment in Michigan," "Occupations," "Social Planning and Social Change," and "The Role of the School as a Social Institution."

Who's Who for November

The authors of articles in the current issue

B. F. Pittenger, dean of the School of Education of the University of Texas. Paul Fendrick, assistant professor of education at the State College of Washington, Pullman, Washington. Charles A. McGlade, superintendent of schools at Pullman, Washington. Cloy S. Hobson, superintendent of schools at Genoa, Illinois. O. L. Harvey, engaged in research in Washington, D.C. G. T. Buswell, professor of educational psychology at the University of Chicago. Warren W. McSpadden, instructor in science at Walt Whitman School, New York City. Anne E. Pierce, head of the Department of Music in the Experimental Schools and assistant professor of music at the University of Iowa. William G. Whitford, associate professor of art education at the University of Chicago. Homer J. Smith, professor of industrial education at the University of Minnesota. Beulah I. Coon, agent for studies and research in home-economics education in the United States Office of Education. Evangeline Colburn, teacher-librarian in the

University Elementary School of the University of Chicago. D. K. BRACE, professor of physical education at the University of Texas.

The writers of reviews in the current issue V. L. BEGGS, superintendent of schools in Elmhurst, Illinois. G. A. YOAKAM, professor of education and director of courses in elementary education at the University of Pittsburgh. HENRY J. OTTO, consultant in education of the W. K. Kellogg Foundation. FRANCIS F. POWERS, associate professor of education at the University of Washington. HELEN E. RICHARDSON, teacher of history and geography in the University Elementary School of the University of Chicago. CLYDE B. MOORE, professor of rural education at Cornell University.

THE TEACHER IN THE MODERN SCHOOL

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THE SCHOOL MAKES THE TEACHER

THERE is a trite but truthful maxim, which has formed the text for countless essays concerning the importance of teachers, to the effect that "as is the teacher, so is the school." This article seeks to emphasize an opposite relationship which is, possibly, not so familiar but is just as true, namely, that the concept of the school and its purposes which prevails in any society determines that society's concept of the teacher and his functions. Stated in form similar to the older maxim, it may be said with equal truth that *as is the school, so the teacher must be.*

Convincing evidence that there is truth in this assertion may be found abroad today in those countries which have adopted the theory of the totalitarian state. It makes little difference whether one selects as an example Soviet Russia or Fascist Germany or Italy. In each of these countries the school is regarded as a major instrument for political propaganda. Its business is to build citizens for the state and members for the controlling party according to a general and preconceived pattern. The discharge of this business calls for teachers with well-defined abilities and political points of view. Their loyalty to prevailing political principles must be unquestioned, and ability to promulgate these principles is their chief professional qualification. The nature of the political state, as these examples show, often gives a character to its schools which largely determines the requirements made of teachers.

It is not necessary, however, to go abroad nor to invade the field of national politics to demonstrate that teachers are formed by the schools, as well as schools by the teachers. In our own country every change and development in the school's responsibilities has been reflected in the demands made on teachers. When the three R's

prevailed in the elementary schools and Latin and Greek in the secondary schools, the teachers were of the sort that made good drillmasters. The rise of vocationalism as a school objective put a premium on teachers with other interests and qualifications. The current emphasis on education for democratic living is shown in the demand for teachers with democratic sympathies and understanding. State teacher-certification laws, local practices in the employment and the promotion of teachers, and the requirements for admission and graduation maintained by institutions for teacher preparation—all change from time to time and from place to place in accord with shifts in the prevailing concepts of the objectives and the purposes of schools.

CHARACTERISTICS OF THE MODERN SCHOOL AND IMPLICATIONS FOR TEACHING STAFF

These remarks have been offered by way of justification for the theme of this article. There is no point to a discussion of the teacher in the modern school except on the theory that the modern school is different from its predecessors and that the difference in some way or ways affects the character or the status of teachers. The procedure suggested is to locate and describe the more important of these differences and to estimate their effects. It must be observed, in passing, that the *modern* school is not identical with the *contemporary* school. Not all contemporary homes are modern homes, and so with schools. The term "modern schools" is taken here to mean the comparatively small number of present-day schools which are organized and conducted according to modern rather than traditional principles.

The modern school is child-centered.—One characteristic of a modern school which definitely affects the qualifications required of teachers is its increasing concern with children instead of subject matter. The modern school is more child-centered, and less subject-centered, than was its predecessor. Its business is the education of human beings, not the promulgation of favorite "disciplines" or subjects. This statement need not commit one to a defense of all that is argued by extremists in the name of the child-centered school. It means only that the modern school seeks as its end the selective

development of children. Subjects are only a means to this end, not ends in themselves; and subjects, as ordinarily conceived, are only a portion of the means.

The implication of this characteristic is that teachers should be specialists in child nature as well as, and even more than, in subjects. They should be thoroughly informed about children. Their preparation must include instruction in the physiology and hygiene, the growth, and the mental and social development of children. They must also learn to know children through intimate association. Directed observation of children should be as much a part of modern teacher preparation as is directed observation of the teaching act. The accumulation of scientific facts about children is essential, but not enough; the modern teacher must be able to enter vicariously into the minds and hearts of children and to regard the world, the school, and the educative process from the point of view of the child as well as that of the adult.

The modern school is concerned with individuals.—The modern school is concerned with children individually, not merely with children en masse. The education of children is accomplished through the individual education of each child. Knowledge of averages will help in understanding individuals, but it is individual children, not average children, who are important. This fact is a natural consequence of the shift from the subject to the child as the center of the school's activities. The subject-centered school tends to treat children as receptacles into which subject matter may be poured and to regard children as generally alike except for size. Some are larger than average and will receive subject matter more readily and hold it in larger quantities; some are smaller and can hold less. The child-centered school, on the other hand, regards the child as an organism whose education is a matter of active acquirement and growth.

The difference between these conceptions of children as individuals and as averages may be illustrated by the contrast between the institutional and the family attitudes toward children. In an institution a child is thought of as an inmate. He is just one among many—and the many absorb the attention of the institutional staff almost to the exclusion of the one. In a home each child in the family is an individual in his own right. He is fostered and loved for him-

self. However numerous the family, no true parent thinks of it as an abstraction. Every child therein is individualized in a very personal way. Such is the attitude of the modern school. It is with this meaning, rather than with the older legalistic meaning, that the modern teacher may be said to stand *in loco parentis.*

The modern school recognizes both cultural and vocational objectives.—Another characteristic feature of a modern school is its cordial acceptance of both cultural and vocational objectives. At last it has become evident that there is no necessary conflict between these two sets of basic aims. Both are necessary to complete living, and neither is possible of satisfactory fulfilment without the other. If education is for life and if life includes work, then surely one object of the school must be education for vocation. If life is more than work, it likewise follows that the school must have a correspondingly larger aim. The modern school in modern society seeks to equip each pupil, to the limit of his capacity, both for making a living and for making a life.

Cultural objectives are sought through what is now called "general education," the purpose of which is to prepare the student for efficient living on a high plane. Along with mastery of the tools of learning and with preparation for citizenship activities, preparation for efficient living is a recognized goal of elementary-school work and becomes increasingly significant at the high-school and junior-college levels. In many colleges today the work of the Freshman and Sophomore years is being largely made over to provide better facilities for general education. The logic of the movement is bringing a similar revamping of the senior high school program, while the exploratory program of the junior high school has recognized this objective from the beginning.

The implications of these facts for teachers at all these levels seem evident. If enlightenment is an objective for the student, it must be a possession of the teacher. General education for students cannot be satisfactorily provided by narrowly trained teachers, however numerous and comprehensive in total may be the fields that they represent. Teachers must embody the essentials of world-culture as individuals, not merely as a total group. The impact of each teacher on each pupil is determinant of the efficiency of general education.

Vocational education finds a place in the modern school, not for itself alone, but also as a part of enlightenment. The efficient pursuit of a vocation is an indispensable part of complete living. A vocation is not merely a way of making a living; it is an integral portion of life itself. In fact, one might argue that it is the co-ordinating center of every life, giving the life purpose and meaning, and that this characteristic, rather than personal economic considerations, establishes the status of a *vocation*. An individual's vocation, from this standpoint, is his major life-activity, that about which he thinks and does most during a whole life's span. The fact that this main life-activity is also the means by which most persons make their livings is, in a sense, an economic accident; but it is a real fact nonetheless.

Vocationalism in the modern school presents two large aspects. One is guidance; the other is vocational training or preparation. Guidance looms large in the earlier stages of the child's school career. Selection must be made, or at least assumed, before specific preparation can begin. Vocational selection, however, is largely a trial-and-error process under guidance. Among other things, therefore, guidance calls for practice in varied and generalized vocational activities—practice which, after selection has been made, becomes the basis for more specific vocational preparation. It now seems likely that in the future such vocational preparation as is provided in the schools will be largely of the basic exploratory or guidance sort. There are relatively few vocations for which the public school can be expected to offer adequate specific training.

The point at issue here is the part, if any, that the general or non-vocational teacher should have in this matter—and the consequent reflection on his qualities and training. Heretofore the schools have depended largely on special teachers and guidance officers for all this work, but there is much to indicate that in the soon-to-be modern school all teachers will have a part to play, at least in the guidance function and at the elementary-school level. Vocational guidance is but a part of the larger problem of educational guidance, and the latter, in turn, is a part of individual life-guidance. The implication is that teachers in general will need to understand and to appreciate, more than many of them have in the past, the significance of the

vocational element in life and education and to broaden their knowledge about vocational opportunities in the modern world. In the larger schools they will doubtless be assisted by specialists, but even here the responsibility of the general teacher cannot be eliminated. The smaller schools must, of course, continue to rely on such service as the general teachers can render, or go without anything of the kind at all.

The modern school is concerned with social training.—Perhaps the most conspicuous feature of the modern school is its concern with the social and the civic aspects of education, growing out of a revival of its original primary obligation. Public education in a democracy exists for democracy's preservation and improvement. The public free school in this country is primarily an agency for extending the democratic way of life.

Public education in America is based on the idea of the taxation of all wealth for the education of all children. Although imperfectly realized in practice, this idea is today generally accepted by both educators and the general public. It was not always so. When proposed more than a century ago, the idea was condemned as unfair, un-American, unconstitutional, and even worse. The taxation of one man's property for the education of another man's child was stigmatized as "robbery." The answer to this criticism which prevailed at the time was that every person, rich or poor, is responsible to the extent of his means for the welfare of his country and that the security of a democracy rests on the intelligence and the information of its citizens. This philosophy underlay the establishment of the American free public school.

For several generations, during the period of continental exploitation which seems now drawing toward a close, this original concept of the major function of the public school in this country underwent a change. Emphasis was then given to the idea that the citizen has a right to education by the state, rather than that the state has a right to educated citizens. The emphasis was on the rights of citizens and the duty of the government, instead of the duty of citizens and the rights of government. Free schools were advocated as the means for equalizing differences in economic and cultural advantages, for placing the poor boy in a better competitive position in relation to the

inheritor of wealth, for putting all citizens on a more nearly equal footing in the race for profits and position. In individual cases the opportunity for free schooling was often regarded and used as a means for securing personal advantage. Not a little of our publicly supported professional education is still exploited in this way. The free public school then became the recognized instrument for realizing the conventional American doctrine that "anybody is as good as anybody else, and (if one's self or one's offspring) maybe a little better."

Doubtless public education must recognize the rights of citizens and the duty of government, but it must also recognize the duty of citizens and the rights of government. Both concepts have a necessary place. The modern school differs from its immediate predecessor in that it has revived the theory under which public education took its start. It differs from its original progenitor in that it also recognizes the rights of individuals to free and equitable opportunity for educational development. It recognizes that democratic government is maintained for the welfare of its citizens and also that citizens must be educated to become capable and well disposed for the discharge of their duties toward the political state.

Except for a portion of the press, school people in this country seem more clearly aware of the nature of the democratic order than almost any other identifiable personnel group. The masses of American citizens seem much confused about it, and this confusion is largely responsible for our political and economic ills. To the average American, democracy is a form of government rather than a way of life. So long as his right to vote and to criticize his government continues, he thinks that he is enjoying a democracy. If he reflects any more deeply, he stops with economic considerations. Democracy then appears as a condition of affairs which permits him to vote and to criticize, which controls his competitors, and which leaves him alone with his business or perhaps gives him a subsidy when needed. He seldom gets down in his thinking to the deep underlying stratum of protecting and increasing human happiness; yet it is at this level where real democracy, as the modern school conceives democracy, must exist.

There is a group of thinkers who maintain that sociology is the

starting and the returning point—the mother, so to speak—of all the fields of social science. Economics and politics are means to social ends. Ultimately, economic and political problems lead into problems concerning the social well-being. Translated into terms appropriate to this article, this doctrine means that democracy is essentially social. Political democracy is only an instrument for maintaining economic and social democracy; and economic democracy, in turn, is a means toward, and is measured by, social democracy. Social democracy, in its turn, is the diffusion to the widest possible extent of the greatest possible freedom among all the members of the social order. Thus is the phrase "democracy as a way of life" interpreted. That government is most democratic, whatever its form, which is most successful in establishing and perpetuating a social democracy.

Social democracy as thus conceived is not "socialism" as generally defined. Its objective is the individual, not society as such. The essence of democracy is individualism. It is composed of individuals; it exists for the benefit of these individuals; and its form is dictated by the needs of these individuals. On the other hand, democracy is not individualism run wild. In a democracy the right of every individual to the largest possible share in human happiness is restricted by the one fact that every other individual in the democracy has the same right. The essence of democracy is, first, to protect this right of every individual from the encroachments of other individuals who are pursuing their identical rights and, second, to encourage and help each individual in any way that does not involve subtraction from the balanced rights of others in the society. In the third place, in a democracy promotion and protection of the rights of individuals are achieved through the initiative and the support of the very individuals whose rights are being promoted and protected.

The modern school seeks to build citizens for a social as well as a political democracy. If these ends are to be accomplished, it is necessary that teachers understand both social and political democracy and that they devotedly support democratic institutions. It is essential that teachers in the schools of a democracy be "democrats" in their sympathies and understanding. This statement does not mean

that all teachers must support one political party or that their social, economic, and political opinions shall be of the same complexion; it means that they should subscribe to that theory of democratic individualism upon which true democracy is based. They should be disciples of the democratic way of life.

I realize that there are persons who will regard this declaration as inconsistent with "freedom of teaching." Such persons appear to believe that democracy is not democracy unless its teachers, like other citizens, have complete freedom of speech in political matters, even to the extent of undermining democracy. This belief seems to me to say that democracy is not democracy unless it, alone among all the forms of government known to man, denies itself the right and the duty of preserving and defending itself. The essence of democracy, to these persons, is its right to commit suicide.

I believe that totalitarian principles are as subversive of democracy as democratic principles are subversive of totalitarianism. Democracy can no more survive the effects of totalitarianism in schools than Fascist or socialistic governments can survive the teaching of democracy. The schools of a democracy, like those of a totalitarian state, must sustain and support the society that supports them. The attempt observed in some places to exclude from the schools of this country even the mention of other forms of government is, of course, as ridiculous as it is futile; but that American teachers should be *democrats*—and not socialists or monarchists, or communists or Fascists—is to my mind an axiom of the first order. Teachers comprise the one great organ of the democratic state that creates and purifies its lifeblood. Surely democracy has the unqualified right to assure itself that this vital organ does not pump it full of poisons.

Besides accepting democratic principles, teachers should be skilful in educating boys and girls to become worthy citizens. They should appreciate the importance of emotional as well as intellectual preparation. Democracy is as much a matter of feeling and attitudes as it is of understanding. The basic social attitudes established in each child's early life become a sort of second nature which is hard to change and which continues as a frame of reference for the citizen's thinking and acting in his later years. Increasingly as the child

grows older, these emotional attitudes are given concrete direction through the cultivation of his intellect and understanding. Here arises the question of indoctrination, which must be reserved for discussion in another place.

SUMMARY

This article has argued that the school makes the teacher, as well as the teacher the school. The prevailing concept of the school and its functions indicates the types of personalities who should be selected to teach and the kinds of equipment that should be given them. These claims are well illustrated by the demands that are made on teachers by the modern school. The ideal modern teacher is not a mere drillmaster or a disciplinarian or a book-worm, but rather a socially intelligent and enlightened person who has both a scientific and a human understanding of children and who is devoted emotionally and intellectually to the democratic way of life.

A VALIDATION OF TWO PROGNOSTIC TESTS OF READING APTITUDE

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THIS study reports an inquiry to determine the predictive value of two well-known measures of reading aptitude when related to an objective criterion of first-grade reading achievement. The subjects for the experiment were first-grade pupils in the schools of Pullman, Washington. This study appeared to be warranted, not because it was novel, but because a school administrator is often confronted with the practical problem of passing judgment early in the school year on those children who may not make normal progress in the typical first year of reading instruction. Valid predictive evidence is essential if reliable guidance for the individual pupil is to be effected. The initial capacities of some children presenting themselves for first-grade entrance might be so disparate that a postponement of the reading program is warranted.

The Detroit First-Grade Intelligence Test had been given regularly to entering first-grade pupils in Pullman for a number of years. Under the existing regulations a child could enter school at the beginning of the year with a minimum chronological age of five years and seven months. While, in general, the available evidence indicates that children who rank higher in mental age are likely to make better reading progress, there are a number of exceptions to the hypothesis advocating an optimum minimum mental age of six years and four months.[1] It was recognized that reading, admittedly a complex process, requires other prerequisites than that of mental age; yet the matter of expediency demanded that some categorical decision be made in connection with questionable cases. An extensive

[1] Elizabeth B. Bigelow, "School Progress of Under-Age Children," *Elementary School Journal*, XXXV (November, 1934), 186–92.

study involving the interrelationships of such factors as the home background, education and intelligence of the parents, interests of the home in the school, as well as the child's many physical and personality attributes, would have involved extensive inquiry incompatible with facilities for an early disposition. An experiment to team up the Metropolitan Readiness Tests with the Detroit First-Grade Intelligence Test was, consequently, decided on in order that the combined predictive possibilities of these tests might be determined in terms of first-grade reading achievement.

The following report indicates the results obtained for pupils entering Grade I in the Pullman schools during one school year. The reading achievement of these pupils was tested at the end of the year by means of the Gates Primary Reading Test. Validating criteria were established in terms of reading-grade status by averaging the grade positions for the three tests constituting the Gates test battery. The authors of the Metropolitan Readiness Tests indicate that ordinarily children who score below 60 and who are six years of age or older (a statement which apparently also implies an equivalent mental maturity) at the time of the test are unable to make satisfactory progress in first-grade school work as judged by scores on reading-achievement tests given at the end of the year.[1] They admit, however, possibilities of exceptions to this generalization.

Complete data were available for sixty-six first-grade pupils. Fifty-three of these made satisfactory progress in reading, and thirteen did not. A product-moment correlation of $.94 \pm .01$ was obtained between the scores made on the Detroit First-Grade Intelligence Test and those on the Metropolitan Readiness Tests. This correlation appeared exceptionally high and presumably implied a high correspondence in the abilities measured by these two tests. In light of this finding it might seem that the Metropolitan tests measured components very similar to those measured by the Detroit test and that the additional test did not contribute substantially to the discriminatory criteria. An examination of the reading achievement available at the end of the year offered an opportunity to confirm this hypothesis. These data are presented in Figure 1.

[1] Gertrude H. Hildreth and Nellie L. Griffiths, *Metropolitan Readiness Tests—Manual of Directions*, p. 17. Yonkers-on-Hudson, New York: World Book Co., 1933.

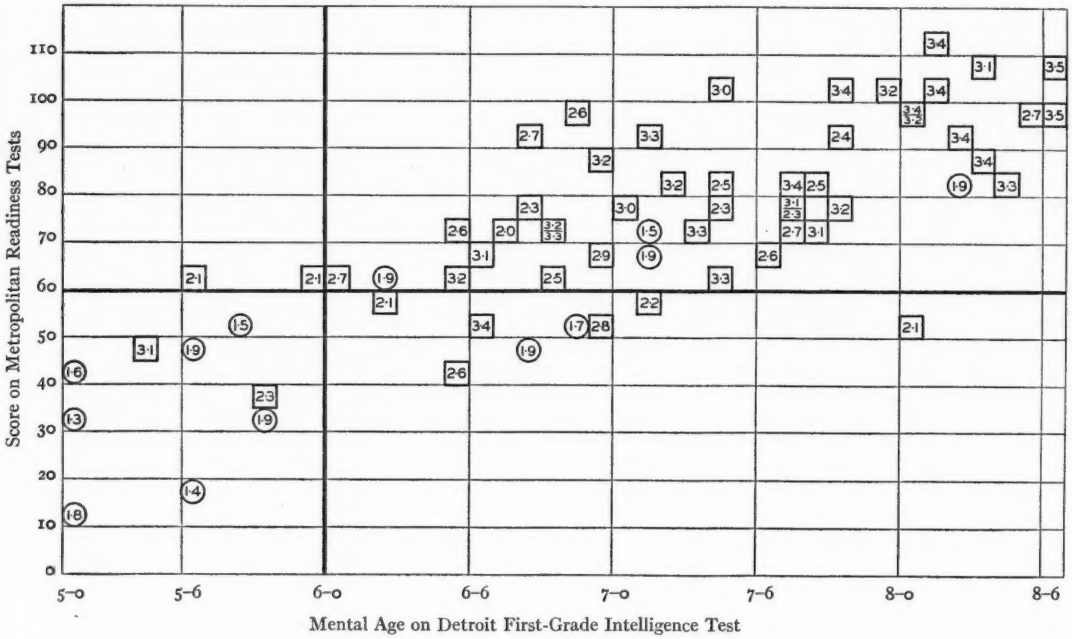

FIG. 1.—Placement of sixty-six pupils on Detroit First-Grade Intelligence Test and Metropolitan Readiness Tests. (Squares indicate pupils who made adequate progress in reading; circles, those who made inadequate progress. The numbers inserted indicate the reading grade at the end of the year, two numbers in a cell indicating two pupils at that level.)

A break-down of the incidence of pupils making scores below or above 60 on the Metropolitan Readiness Tests gives the results shown in Table 1. These results indicate that prognosis on the basis of the Metropolitan Readiness Tests alone did not fully differentiate pupils at the beginning of the year who actually made satisfactory

TABLE 1

DISTRIBUTION OF PUPILS SCORING BELOW AND ABOVE 60 ON METROPOLITAN READINESS TESTS ACCORDING TO READING ACHIEVEMENT AND ACCORDING TO MENTAL AGE ON DETROIT FIRST-GRADE INTELLIGENCE TEST

	Number of Pupils with Scores on Metropolitan Test	
	Below 60	Above 60
Total number of cases	17	49
Pupils with adequate reading achievement on Gates test:		
Mental ages above six on Detroit test	6	43
Mental ages below six on Detroit test	2	2
Total	8	45
Pupils with inadequate reading achievement on Gates test:		
With mental ages above six on Detroit test	2	4
With mental ages below six on Detroit test	7	0
Total	9	4

reading progress in the first grade, that is, achieved one grade of reading progress. Only 49 of the 66 cases (74 per cent) made scores on the Metropolitan Readiness Tests which, if considered alone, warranted a prediction of potential reading success. Again, eight of the 17 children (47 per cent) who scored below 60 on the Metropolitan Readiness Tests, actually made normal reading progress. Furthermore, when the mental ages of the questionable cases (those having scores below 60) were taken into account, a significant multiple probability favored the hypothesis that, whenever a mental age

of at least six years was identified with a score below the critical Metropolitan rating, the possibility of adequate reading achievement was increased.

Conversely, there was not a single instance in the group scoring above 60 on the Metropolitan tests with a mental age below six years where inadequate reading was found. When the categorical criterion of a score of at least 60 on the Metropolitan tests was used, there were, in the group of 49 pupils, 45 (92 per cent) who made adequate reading achievement. The incidence of pupils having a mental age below six years and also a favorable score on the Metropolitan tests and adequate reading achievement was negligible—only two instances out of 45 (4 per cent).

A similar analysis based on the Detroit First-Grade Intelligence Test was made, and the results are shown in Table 2. These data indicate that individual prognosis based on a six-year level of intelligence appeared to be more significant than a level of six and a half years. Figure 1 confirms this conclusion, since five of the six pupils in the mental-age zone of six to six and a half achieved satisfactory reading attainment. Consequently the present analysis utilizes this empirical level as a point of departure. The evidence in Table 2 indicates that, while pupils who have mental ages above six years are in a favorable position for group prediction of reading achievement (55 out of 66, or 83 per cent, of the cases falling in this category), nevertheless a mental age below six years on the Detroit First-Grade Intelligence Test does not entirely preclude the possibility of reading success. Four of the eleven pupils with mental ages below six made adequate reading grades and indicated potential instances where denial of opportunity might have resulted. While it is granted that, because of the small number of cases involved, the findings here do not possess statistical reliability, yet they have certain clinical value. A consideration of the scores made on the Metropolitan tests would have altered the prediction for two of these eleven pupils. It is particularly significant, furthermore, that a valid prediction of reading success could have been established for pupils falling below six years in mental age in nine out of eleven instances if the diagnosis of reading aptitude had been based jointly on the two prognostic tests.

Forty-nine of the group of 55 pupils (89 per cent) with mental ages above six years terminated the academic year with adequate reading

achievement. Association of the Metropolitan Readiness Tests with the Detroit First-Grade Intelligence Test did not increase the degree of predictability, for there were six adequate readers who scored below the critical level on the Metropolitan tests and four inadequate

TABLE 2

DISTRIBUTION OF PUPILS WITH MENTAL AGES BELOW AND ABOVE SIX ON DETROIT FIRST-GRADE INTELLIGENCE TEST ACCORDING TO READING ACHIEVEMENT AND ACCORDING TO SCORE ON METROPOLITAN READINESS TESTS

	Number of Pupils with Mental Ages	
	Below Six	Above Six
Total number of cases	11	55
Pupils with adequate reading achievement on Gates test:		
Scoring above 60 on Metropolitan tests	2	43
Scoring below 60 on Metropolitan tests	2	6
Total	4	49
Pupils with inadequate reading achievement on Gates test:		
Scoring above 60 on Metropolitan tests	0	4
Scoring below 60 on Metropolitan tests	7	2
Total	7	6

readers who scored above the critical level. In the category of pupils attaining inadequate reading achievement, a consideration of the scores on the Metropolitan tests again did not offer discrimination significant for predictive purposes.

The preceding analysis of the data might be treated summarily in the following tentative conclusions. Neither the Detroit First-Grade Intelligence Test nor the Metropolitan Readiness Tests, separately, nor even a selective combination of their measures, yielded evidence that exclusively would make it possible to predict ultimate individ-

ual attainment in first-grade reading. In general, however, scores above the commonly accepted critical levels on these prognostic tests tended to give selective status on a categorical basis. It appears that adequacy of individual prediction could be increased somewhat by utilizing a combination of the scores on the two tests. The latter consideration involves, however, the following discriminations. In

TABLE 3

DISTRIBUTION OF PUPILS WHO MADE INADEQUATE AND ADEQUATE READING ACHIEVEMENT ON GATES TEST ACCORDING TO LEVEL ATTAINED ON METROPOLITAN READINESS TESTS AND DETROIT FIRST-GRADE INTELLIGENCE TEST

	Number of Pupils	
	Making Inadequate Reading Achievement	Making Adequate Reading Achievement
Total number of cases	13	53
Pupils below critical levels on both Metropolitan and Detroit tests	7	2
Pupils above critical levels:		
On both tests	4	43
On one test	2	8

the case of pupils having mental ages of six years or over, the Metropolitan Readiness Tests appeared to offer no discriminatory advantages, but these tests appeared to aid the accuracy of prediction for pupils below six years mentally. Likewise, the Detroit test appears to aid in discriminating the reading prognosis for pupils falling below the critical level on the Metropolitan tests. The Detroit test does not appear, however, to further discrimination of pupils who score above 60 on the Metropolitan tests.

A somewhat different approach for analysis of the data in Figure 1 would be to consider the reading-prognosis tests in terms of joint scores for those pupils who achieved at least one grade of reading achievement and for those pupils who did not make this grade. This treatment gives the results shown in Table 3. It is obvious from this

tabulation that valid prognoses could have been obtained for 58 of the 66 pupils (88 per cent of the entire experimental population) if normal reading opportunities had been postponed for those pupils falling below the critical levels on both aptitude tests. A consideration of the factors influencing test unreliability and the complexity of conditions affecting adequate reading efficiency presents an excellent recommendation for utilizing the Detroit First-Grade Intelligence Test and the Metropolitan Readiness Tests as prognostic tests for reading aptitude, especially when expediency offers a limited basis for administrative judgment.

SUMMARY

Based on one year of reading achievement, as measured by the Gates Primary Reading Test, an attempt was made to validate the prognostic value of the Detroit First-Grade Intelligence Test and the Metropolitan Readiness Tests. These tests were given to all school children entering Grade I in Pullman, Washington, but findings have necessarily been restricted to those cases for whom complete records were available. The evidence indicates that critical utilization of these two tests in selective combination enhances their significance for prediction of first-grade achievement.

THE COMPLIMENTARY MARK

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THE NEED FOR THE MARK

THE lowest passing mark is reserved in some schools for those pupils who are unable to do the standard quality or quantity of work. It is a reward for effort rather than a measure of achievement. The pupil who receives the mark is presumably laboring under a handicap which, although he makes his best effort, prevents his doing standard work. Such a mark is sometimes called a "complimentary mark." It will be so designated in this article.

The complimentary mark is widely used. In a few schools it is an integral part of the marking system and is governed by adequate administrative regulations. In other schools, although it is given administrative sanction, it has little or no regulation. In still other schools teachers use it independently, however and whenever they please, without administrative sanction. The complimentary mark, of course, even in the schools where it is carefully regulated, is not the ideal solution for the problems presented by the subnormal or the underprivileged children. Many progressive schools are working toward widely differentiated curriculums and highly individualized instruction. Such integrating practices may be developed into the ultimate solution. In schools, however, where facilities are too limited to provide highly differentiated materials and methods of instruction and where a marking system is in use, the complimentary mark is a justifiable device and may be given a place in the schools' philosophies of education.

The use of the complimentary mark is a step toward democracy in education. A thoroughly democratic school adapts its work to the abilities and the needs of the children. It does not ask the children to conform to a common pattern. Few, if any, schools, however, are able at present to provide highly individualized instruction. Neces-

sary economies require that they set up standards of achievement adapted to the great middle group of abilities and that they offer instruction to bring the larger percentage of the pupils within the scope of these standards. The deviates at the lower end of the scale are unable to meet the standard requirements in quantity and quality of work. If the school is undemocratic, it will adhere rigidly to its standards and the less able pupil will be required to repeat the course or grade. In high school he may be permitted to try an alternate subject and to sacrifice credit in the subject which was not adapted to his abilities and needs. In the elementary school, where nearly all subjects belong to the common core, he has no choice but to repeat. He may repeat many times and still not reach the standard. In any event he becomes retarded. In some cases he becomes so discouraged with work ill adapted to his needs and with repeated failures that he drops out of school at the first opportunity. A school which cannot offer highly individualized instruction may, in the interests of democracy, employ the complimentary mark. The complimentary mark, if wisely used, protects the pupil against the deadening sense of repeated failures in subjects that are not adapted to his abilities and needs and gives him the opportunity to profit, insofar as he is capable, from the curricular and the extra-curriculum offerings of the school.

ADVANTAGES OF THE MARK

Teachers who use the complimentary mark state that it provides the benefits listed below. Some of these statements may appear at first to condone a pedagogically undesirable situation. If the situation created by the use of the complimentary mark, however, is contrasted with the situation which obtains without it, the former, if it be an evil, is seen to be the lesser of two evils.

1. It preserves in a pupil who cannot achieve the work of the curriculum a sense of self-confidence, self-respect, even of success.
2. It gives credit for effort.
3. It encourages continued effort even when achievement is slight.
4. It permits the school to promote to the next course or grade a pupil who, because of lack of opportunity, has not been able to do the work of a grade or a course but who will nevertheless be able to do the work of the next grade or course.

5. It permits the school to graduate some pupils who cannot meet all the academic requirements for graduation.

6. It retains pupils in school who, although they cannot succeed in some types of required work, are succeeding in other types of work.

7. It retains pupils of school age in school for the benefits that they derive from the socializing opportunities of the school.

8. It provides the opportunity to give pupils work commensurate with their abilities and needs even though it is not the standard work of the course or grade.

9. It saves teacher and pupil from too much make-up work after the pupil has been absent for illness or other necessary causes.

10. It gives teachers overburdened with work the opportunity to spend less time with slow pupils and more time with pupils who are doing standard work or better.

11. It distinguishes between pupils who have earned promotion and those who are promoted without having done the required work.

12. It enables teachers to set a relatively high standard for promotion without failing too many pupils, for those who cannot meet the high standards may be "passed" with a complimentary mark.

13. It saves the community the cost of unprofitable repetition of courses or grades.

DISADVANTAGES OF THE MARK

The chief objections to the complimentary mark seem to arise because the device is so often misused. The following criticisms are most commonly offered.

1. The use of the complimentary mark is not carefully regulated by an administrative plan. It is not a planned part of the marking system and of the general administration of the school.

2. Teachers and administrators in a school system lack a common understanding of the meaning of the mark and do not use it uniformly throughout the system.

3. Pupils, parents, college authorities, and employers, because they do not understand its meaning, are often disappointed in the low achievements of pupils who have been graduated from high school by use of the complimentary mark.

4. Teachers do not know to whom to give the mark because of the difficulty of determining ability, or the lack of it, to do standard work.

5. An indifferent but capable pupil may succeed in his desire to be known as a complimentary-mark pupil and so "get by" with little real effort.

6. Some teachers may use the mark with pupils of low intellectual ability as an excuse for not making an effort to teach a pupil all he can learn.

7. Teachers and administrators may become satisfied with the compli-

mentary mark and may not work toward the ultimate goal of providing curriculums suited to the needs and the abilities of all pupils.

8. A pupil may make satisfactory effort in a course or a grade and be promoted with a complimentary mark when he could have profited measurably by repeating.

9. The complimentary mark may be given too freely in prerequisite courses, as in high-school English, so that many pupils with low-grade preparation find their way into the upper levels of the subject. If they nearly outnumber the pupils with adequate preparation, the standards of the entire class may be lowered to accommodate them.

10. A pupil may become labeled a complimentary-mark pupil and be denied opportunity to attempt work that he might do well.

11. A dull but hard-working child may be embarrassed or discouraged by being classified as a complimentary-mark pupil with others of a less desirable type.

12. The progress that a dull child actually makes cannot be indicated if he always receives the complimentary mark.

13. The academic standards of the school may be lowered by using the complimentary mark.

PRECAUTIONS FOR USE OF THE MARK

In order that the abuses listed above may be avoided and that the complimentary mark may be made a valuable device in administering a more nearly democratic school system, certain precautions should be taken.

1. The use of the complimentary mark should be regulated by a carefully worked out administrative plan.

2. All teachers in the school should have a common understanding of the meaning of the mark and should use it according to that understanding.

3. Parents, pupils, college-admission offices, and prospective employers of pupils should understand the meaning of the mark. It should rarely, if ever, be used as a basis for recommendation for college entrance.

4. A case study should be made of each pupil who may be a complimentary-mark pupil to discover as fully as possible his aptitudes and needs. The case study should develop continuously as the pupil's reactions to various types of subject matter and instructional methods are discovered and recorded.

5. The complimentary mark should be used for a pupil only after a conference of teachers and supervisors has made a careful study of his case record. To receive the complimentary mark, the pupil should be judged by the conference to be doing the best work of which he is capable under the circumstances and to be incapable of profiting measurably by repetition. Particular care should be taken to identify pupils with the "get-by" attitude who want to conceal their abilities and to become branded as complimentary-mark pupils. Slow workers

should usually be given a mark of "incomplete" rather than the complimentary mark. The mark should be used sparingly in prerequisite subjects. Some handicaps which may entitle pupils to the complimentary mark are low general ability, inaptitude in specific subjects, inefficient mental habits, psycho-physical defects, an overload of work outside of school, poor scholastic background, nervous or emotional disturbances, poor physical health, and long absence from school.

6. The standard requirements for any course or grade should not be lowered for pupils who are capable of meeting them, even though there are a number of complimentary-mark pupils in the group.

7. The determination that a child is a complimentary-mark pupil in one course or grade or in one marking period should not necessarily hold for all courses or grades or for all marking periods. The teacher should aid the pupil in an effort to remove the handicaps and to do standard work.

8. Teachers and administrators should not consider the complimentary mark the ultimate solution but should strive continually to adapt the work to the aptitudes and the needs of each pupil.

CONCLUSION

The ultimate goal of a democratic school is the use of individual curriculums. The writer has commented on the individualization of curriculums in another connection.[1] As this goal is approached and as techniques are developed for teaching individuals effectively in class groups, the need for the complimentary mark will disappear. Then, indeed, the achievements of pupils in school cannot be compared by use of marks, for no single scale can be devised that will apply to all. Two symbols only will be required, one indicating that the pupil has made satisfactory progress in his curriculum and the other indicating that he has not.

[1] Cloy S. Hobson, "Evaluating the Curriculum for the Individual Pupil," *Appraising the Elementary-School Program*, pp. 323–30. Sixteenth Yearbook of the Department of Elementary School Principals. Bulletin of the Department of Elementary School Principals, Vol. XVI, No. 6. Washington: Department of Elementary School Principals of the National Education Association, 1937.

ENROLMENT TRENDS IN ELEMENTARY-SCHOOL GRADES, BY STATES

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*

IN AN earlier article[1] the writer sought, from an analysis of national enrolment data, to determine the extent to which population shifts, economic depression, and administrative grading and promotional policies may have accounted for trends in public-school enrolments at the elementary-school level during the period 1911–36. The earlier analysis showed that the effects of the economic depression and especially of administrative grading policies so obscured the total picture that it was almost impossible to determine the influence of population shifts alone. At the same time, there was clearly indicated the need for more detailed analysis in terms of state data from which to determine, if possible, what variations might exist between states. The present article constitutes an attempt to provide that analysis.

To present a comprehensive discussion of trends by grades in each state separately would, it is obvious, constitute an impossible task in a brief article and would be boring to the reader. It has been found convenient, therefore, to provide a kind of shorthand sketch which, in rough outline, should serve to indicate state enrolment trends at the elementary-school level for the period 1918–36.

The initial problem (and this contribution makes merely an attempt at a partial solution) was to express the essential facts in simple outline, sufficient for purposes of reconstruction in tabular and graphic form. If this end was to be achieved, it was necessary, first of all, to eliminate all unessential or misleading evidence. It was decided, therefore, to exclude from consideration all secondary-school data; all kindergarten and preschool data; and, because of their markedly eccentric behavior, all first-grade enrolments. This

[1] O. L. Harvey, "Enrolment Trends and Population Shifts," *Elementary School Journal*, XXXVIII (May, 1938), 655–62.

decision left for consideration only Grades II–VIII, inclusive, or in states in which the seven-four plan predominates, Grades II–VII, inclusive. Since, however, trends are not moving in the same direction nor at the same rate in all these grades, the next problem was to develop a simplified scheme for expressing trends within the grade limits selected. Almost any such scheme, it was evident, would be arbitrary, but some schemes would be more reasonable and more appropriate than others. An examination of the grade enrolment data charted for several states made it clear that trend lines for total enrolments would be grossly misleading because of trend variations among grades included in the total. On the other hand, to present more than two trend lines would complicate resolution of the final picture. It was therefore decided, after some experimentation with the data for several states, to limit comparison to two measures. These could represent either two separate single grades or the averages for two separate groups of grades. The latter procedure, using one curve to represent the average for Grades II–V and the other to represent the average for Grades VI–VIII (or VI–VII), was eventually selected. That this grouping of grades was purely arbitrary is not denied; any other grouping could have been used. It seemed, however, that the grouping chosen was convenient for the interpretation of current trends.[1]

Still a third problem remained. The computed averages necessarily would be expressed in the form of frequencies, which vary from one state to another according to the size of the enrolment. Thus, state comparisons would be useless unless the data were presented in graphic form on ratio paper. Furthermore, the trend lines thus developed maintain no constant relation with each other, and neither trend line is in itself stable. Some method would have to be developed to express the derived averages in comparable terms. The solution obviously lay, first, in expressing one of the trend lines (the "variable") in terms of its relation to the other (assumed to be "constant") and, second, in expressing the "constant" as an index relative to a base year common to all states.

[1] An impeccable method of expressing the trends of a complex of grades in simple and effective form would constitute an exceedingly valuable contribution in this field of statistics.

Thus, to express elementary-school enrolment trends in a given state at a given time and in such a way as to simplify comparison with those for any other state at the same or any other time, and to avoid the complexity which arises from a study of each of seven or more grades separately, it is sufficient for practical purposes to report merely two measures: the index for the average of Grades II–V and the percentage which the average of Grades VI–VIII constitutes of this index.

Appended are two tables and a chart.[1] Table 1 presents, for each state and, insofar as reported, for each biennium since 1918, the index for the average for Grades II–V. As base year it was found convenient to select 1926, the first in which a sufficiently large number of states reported enrolment data. Sufficient data were available for Colorado and Iowa to justify the estimating of an average for the base year, but unfortunately they were not available for Vermont, Rhode Island, and Connecticut, which are consequently omitted. The score for the base year, necessary for index computation, is presented for each state in the second column.

Because the maximum or "peak" index for each state is not always clearly determinable, an approximation has been made on the assumption of a smoothed curve. That this procedure is arbitrary is fully recognized. The peak indices thus determined are indicated in the table in boldface type. It will be noted that a peak index has been identified in forty-two states and that the year in which the peak index occurred is not the same for all states, even in the same region. The peak occurred in one state before 1922, in fifteen states before 1926, in twenty-seven before 1930, in thirty-seven before 1934, and in five during or after 1934.

Unfortunately age trends by states are not available after 1930, and those between 1920 and 1930 can only be estimated. Consequently, for the most important period of development, 1926–36, direct comparison of age and grade trends is not possible. Two methods of analysis are available, however, which might throw light on the problem. The first is a comparison of enrolment changes and age changes from 1920 to 1930, and the second is the reasonableness

[1] In all three the classification by regions conforms to that adopted by the National Resources Committee.

of the observation made above concerning the distribution of peak years—a measure, as it were, of internal consistency. Making estimates where possible to determine the average enrolments for Grades II–V for 1920 and comparing the percentage of the 1930 average to the 1920 average with the corresponding percentage for the age group of five to nine years, we obtain a rank-difference correlation coefficient of only $.04 \pm .11$. This coefficient suggests that for the period 1920–30 there was almost no relation between trends in enrolment averages for Grades II–V and the age group of five to nine.

Consideration of the evidence relating to enrolment trends for 1920–36, presented above, would tend to confirm this finding. If enrolment trends are closely related to shifts in the age structure of the population, a fairly high degree of regional consistency should appear in the incidence of peak years in average enrolments in Grades II–V. No such degree of consistency is observable. It is doubtful as a generalization, therefore, that the observed enrolment trends by states, especially the decline since the peak year in each state, is directly related to shifts in the age of the population.

Before this finding is finally accepted, however, it would be well to consult the visual evidence of trends in the averages for Grades II–V as presented in Figure 1, in which the states have been arranged by regions. There it will be observed that, although the peak year may vary from state to state, the general trend of the curve (the upper curve in each case) is somewhat similar for states in the same general region. Note, for example, the similarities between Washington and Oregon; Montana, the Dakotas, Idaho, Utah, and Colorado; Arizona and New Mexico; the Carolinas, Georgia, Alabama, and Mississippi; and a large number of states in the Northeast and the Middle regions. As will be pointed out later, there are really striking regional similarities in enrolment trends—an observation forcing reconsideration of the earlier tentative conclusion.

An explanation of the apparent discrepancy in the findings is necessary. The only explanation which, in the writer's opinion, might serve the purpose is that advanced in his earlier article dealing with the national picture, namely, that the relation between age

TABLE 1

PERCENTAGES THAT AVERAGE ENROLMENTS FOR GRADES II–V IN 1918–36 ARE OF ENROLMENT IN 1926 AS BASE YEAR*

State	Index Base Score (Enrolment in Thousands)	1918	1920	1922	1924	1926	1928	1930	1932	1934	1936
Far West:											
California	83.9	67	71	83	98	100	105	112	**117**	113	111
Nevada	1.6	....	100	94	106	100	100	106	112	**112**	112
Oregon	17.5	88	85	96	102	100	100	105	**107**	100	90
Washington	31.8	90	97	97	102	100	**100**	102	96	91	88
Northwest:											
Idaho	12.2	....	....	**106**	104	100	101	97	92	90	90
Utah	13.4	100	94	102	**103**	100	100	99	98	96	92
Colorad	(25.0)†	....	....	....	....	**100**	....	98	97	90	88
Wyoming	5.0	....	102	....	**110**	100	106	108	108	104	102
Montana	12.1	88	**115**	106	104	100	99	98	92	86	81
North Dakota	18.7	97	102	....	**102**	100	96	91	87	83	80
South Dakota	17.0	....	96	101	**102**	100	98	97	95	85	84
Nebraska	30.7	....	....	....	....	100	**102**	100	98	93	87
Kansas	41.7	....	61	63	....	100	**99**	100	97	94	88
Middle:											
Missouri	92.8	....	....	....	....	**100**	....	....	....	78	76
Iowa	(55.0)†	....	....	....	**105**	100	....	95	93	89	84
Minnesota	54.4	....	86	**102**	99	100	99	98	96	91	87
Wisconsin	49.1	96	95	99	102	100	106	**108**	101	96	94
Michigan	83.8	....	82	83	97	100	94	**109**	108	102	97
Illinois	130.1	91	89	92	....	100	**100**	99	97	94	87
Indiana	64.2	101	96	99	102	100	100	101	102	98	98
Ohio	123.6	92	....	....	100	100	**104**	100	101	97	94
Northeast:											
Pennsylvania	210.1	....	....	....	....	**100**	100	99	96	92	88
New York	197.6	....	....	95	100	100	103	105	**109**	101	97
Maine	14.2	86	98	....	102	100	104	105	**110**	107	105
New Hampshire	7.3	....	95	96	99	100	**100**	100	99	96	95
Vermont‡	....	....	....	....	....	....	....	....	....	....	....
Massachusetts	68.6	88	88	95	100	100	105	**105**	103	100	94
Rhode Island‡	....	....	....	....	....	....	....	....	....	....	....
Connecticut‡	....	....	....	....	....	....	....	....	....	....	....
New Jersey	73.5	....	83	85	92	100	108	**109**	107	101	93
Delaware	4.5	....	102	102	100	**100**	100	102	98	98	96
Maryland	29.8	101	....	92	101	100	105	107	107	107	**108**
West Virginia	45.5	86	91	100	**110**	100	100	97	103	100	104

* Figures in boldface type represent the estimated maximum or "peak" index on an assumed smooth curve.

† Parentheses indicate estimates.

‡ Sufficient data were not available in these states to justify estimates for the base year. Consequently indices for subsequent years on the base of 1926 cannot be computed.

TABLE 1—*Continued*

State	Index Base Score (Enrolment in Thousands)	1918	1920	1922	1924	1926	1928	1930	1932	1934	1936
Southeast:											
Kentucky	67.0	102	97	**112**	102	100	94	94	101	97	100
Tennessee	76.3	94	97	99	**103**	100	100	90	91	92	91
Virginia	67.8	....	....	100	102	100	99	99	**104**	101	100
North Carolina	100.0	84	....	....	103	100	99	102	100	103	100
South Carolina	60.0	....	70	96	99	**100**	97	95	96	93	96
Florida	38.9	60	68	72	80	100	100	96	101	106	**107**
Georgia	85.4	107	107	112	**114**	100	98	98	102	104	103
Alabama	67.6	....	104	108	106	100	104	104	106	106	**109**
Mississippi	64.7	....	....	....	....	100	**103**	102	97	98	....
Louisiana	44.2	....	....	....	110	100	113	114	116	117	**121**
Arkansas	61.7	....	....	**114**	101	100	93	84	82	82	82
Southwest:											
Oklahoma	70.7	....	95	103	**102**	100	103	101	99	88	92
Texas	137.1	91	91	104	102	100	97	104	104	104	104
New Mexico	11.4	....	115	**115**	115	100	96	89	95	83	90
Arizona	8.4	....	107	91	102	100	106	**124**	114	108	117
Median	.....	91	95	99	**102**	100	100	100	101	97	94

and enrolment trends is obscured by the effects of other factors, such as improvements in the grading and the promotion of children in the earlier grades and population migration, especially significant in the Northwest and in parts of the Southeast regions. That a relation actually exists between age and enrolment trends, which probably will become more and more evident in the near future (as is already suggested from evidence relating to some of the older industrial states, such as Massachusetts), is not, however, denied.

The findings in Table 2, in which the enrolment averages for Grades VI–VIII (or Grades VI–VII) are recorded as percentages of the averages for Grades II–V, are less contentious and may be briefly expressed as follows:

Before 1934, although in all states the percentages had consistently increased, no percentage had exceeded 100. By 1934, however, seven states, and by 1936 fifteen states, had reached or exceeded the percentage of 100. The significance of this observation is important. It means that enrolments in the earlier elementary grades of these

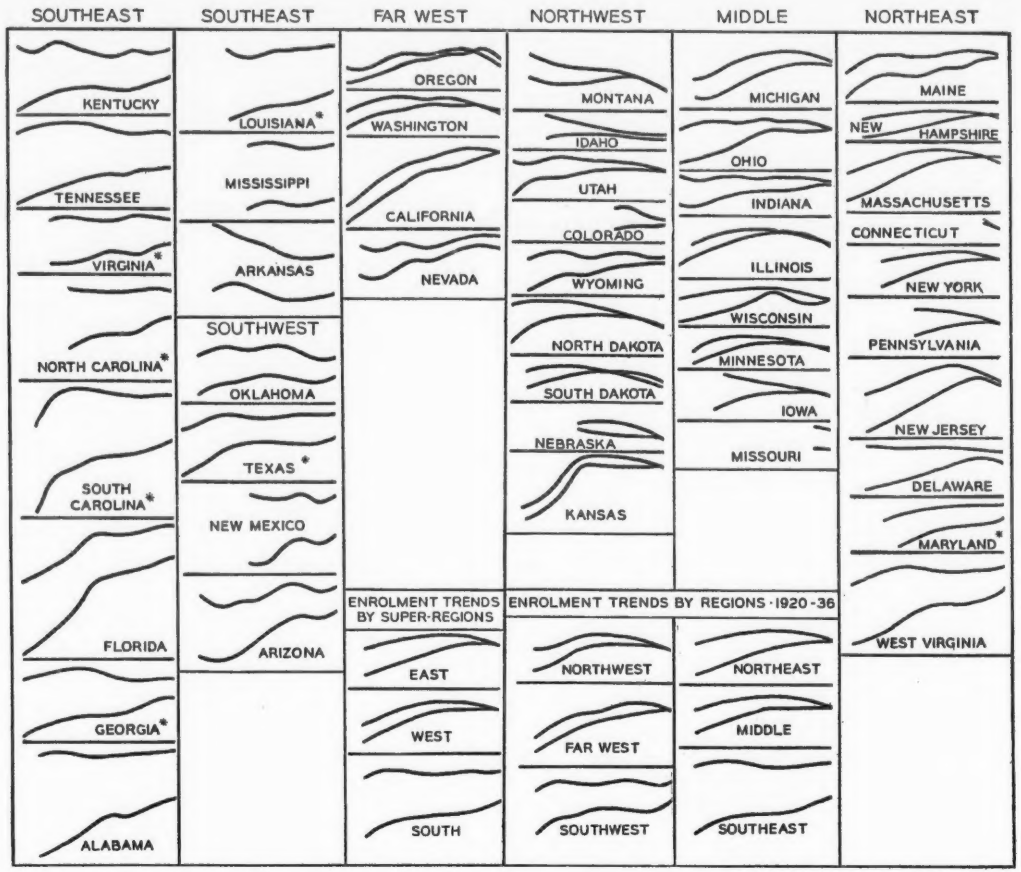

FIG. 1.—Enrolment trends in 1918–36 by states and regions. All curves are comparable in terms of growth. The upper curves represent the averages of Grades II–V; the lower curves, Grades VI–VIII (or Grades VI–VII in states marked with asterisks, which have the seven-four plan). No reports were available for Rhode Island and Vermont.

states are becoming actually less than those in the later grades.[1] The last row in Table 2, showing the median percentage of the states reporting in any year, clearly indicates the rapidity with which this shift is taking place. From 70 in 1918 the median rose to 82 in 1926, to 86 in 1930, and to 96 in 1936.

In general, the northern states have reached higher percentages than have the southern states. The probable reasons for the percentage scores vary somewhat according to geographical location of the states. For example, examination of the percentages for 1936 shows that, of the fourteen states scoring 100 or more, six are in the Far West or the Northwest regions and these six have been losing enrolments in the earlier grades for many years (see Table 1); the remainder, all in the Middle and the Northeast regions, reached the peak in enrolment in Grades II–V at later dates and are declining in enrolments in the earlier grades at a slower rate. Thus, regional differences undoubtedly affect the relation between enrolments in the earlier and the later elementary-school grades. Most conspicuous in this connection is the evidence relating to the southern states, where by 1936 only two out of fifteen states had exceeded a percentage of 80.

Generally speaking, the size of any percentage reported in this table is a rough measure of the holding power of the elementary schools; the smaller the percentage, the poorer the holding power. The deficiencies of the southern states in this connection are especially noticeable. In part, the low percentages in these states are due to an increase in enrolments in the earlier grades; but the relative increase in enrolments in the later grades still fails to increase the percentage to any appreciable extent. Progress in the Southwest region is undoubtedly greater than that in the Southeast, but the Southwest also has a long way to go before reaching the high percentages common to the northern states.

In Figure 1 an attempt has been made to present graphically the information contained in Tables 1 and 2. As a means of facilitating direct comparison between states, the computed averages have been plotted on ratio paper, as this arrangement has the effect of present-

[1] By way of illustration, in Massachusetts for 1936 the ranking of grades by size of enrolments is as follows: VII, VI, I, V, VIII, IV, II, III. The grades are almost in reverse order of what one would expect.

TABLE 2

PERCENTAGES THAT AVERAGE ENROLMENTS OF GRADES VI–VIII ARE OF AVERAGE ENROLMENTS OF GRADES II–V IN 1918–36

State	1918	1920	1922	1924	1926	1928	1930	1932	1934	1936
Far West:										
California	81	85	85	79	88	88	85	86	94	99
Nevada	.....	75	73	76	88	88	88	89	89	89
Oregon	86	93	89	88	97	97	98	97	107	108
Washington	83	86	88	86	92	95	92	98	102	104
Northwest:										
Idaho	.....	.....	82	86	91	89	93	96	99	97
Utah	71	87	82	81	89	90	95	94	96	98
Colorado	.....	.....	.....	.....	.....	.....	80	82	91	94
Wyoming	.....	73	.....	80	84	85	87	87	94	96
Montana	78	79	81	84	87	90	94	99	103	101
North Dakota	66	76	.....	84	89	93	97	99	100	98
South Dakota	.....	85	87	90	95	96	96	98	110	101
Nebraska	.....	.....	.....	.....	95	89	90	92	96	100
Kansas	.....	88	88	.....	91	93	90	92	97	101
Middle:										
Missouri	.....	.....	.....	.....	43	.....	.....	.....	82	83
Iowa	.....	.....	.....	75	.....	.....	92	93	99	101
Minnesota	.....	89	81	85	89	94	95	96	101	103
Wisconsin	76	80	82	82	89	92	94	91	92	100
Michigan	.....	83	81	75	82	88	85	87	93	96
Illinois	78	89	86	.....	91	92	90	94	99	101
Indiana	74	70	83	82	87	88	86	87	95	96
Ohio	70	.....	.....	77	83	89	90	89	95	99
Northeast:										
Pennsylvania	.....	.....	.....	.....	78	84	86	90	97	100
New York	.....	.....	78	78	84	88	89	91	96	99
Maine	79	82	.....	80	84	85	87	81	94	97
New Hampshire	.....	83	84	82	85	88	92	94	103	103
Vermont†	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Massachusetts	72	77	79	78	84	89	91	93	99	104
Rhode Island†	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Connecticut†	68	.....	.....	.....	.....	.....	.....	.....	97	100
New Jersey	.....	67	72	70	73	77	80	88	96	96
Delaware	.....	65	70	71	78	78	83	91	93	91
Maryland*	55	.....	48	71	79	81	79	82	84	87
West Virginia	55	54	55	56	66	72	72	70	75	80
Southeast:										
Kentucky	56	58	61	62	69	73	71	69	63	75
Tennessee	48	51	53	54	58	61	65	67	68	71
Virginia*	.....	.....	64	61	67	75	69	67	74	78
North Carolina*	51	.....	.....	55	62	65	64	66	72	76
South Carolina*	.....	41	44	44	48	52	54	56	60	63

* In a state marked with an asterisk the averages are for Grades VI–VII only because most of the state operates on the seven-four plan.

† Sufficient data were not available in these states to justify estimates for the base year. Consequently indices for subsequent years on the 1926 base cannot be computed.

TABLE 2—*Continued*

State	1918	1920	1922	1924	1926	1928	1930	1932	1934	1936
Southeast—*continued:*										
Florida	48	48	55	55	60	64	69	67	70	73
Georgia*	45	47	48	48	56	59	59	61	65	66
Alabama	.....	54	57	63	51	54	53	56	60	60
Mississippi	.....	.....	.....	.....	52	55	54	57	57	.....
Louisiana*	.....	.....	.....	51	60	56	58	58	58	67
Arkansas	.....	.....	51	63	59	62	63	66	66	68
Southwest:										
Oklahoma	.....	67	69	71	76	76	74	76	81	83
Texas*	61	66	72	73	79	80	75	74	77	96
New Mexico	.....	.....	.....	.....	46	46	63	63	66	67
Arizona	.....	53	58	57	65	70	65	74	77	77
Median	70	76	76	75	82	85	86	87	94	96

ing rate of growth as distinct from absolute change. So far as possible, states have been placed in juxtaposition in accordance with geographical location and region. Summarized data by regions and again by super-regions (combining Far West with Northwest, Middle with Northeast, and Southwest with Southeast) are presented in the insets. Especially in view of the preceding discussion of the tabular evidence, the story which these charts tell is sufficiently clear to make further elaboration unnecessary. Most interesting, perhaps, are the observations which might be made concerning the marked difference between northern and southern states, and the peculiar deviations of individual states from the composite of the region in which they occur. In the latter connection, attention is drawn to the following states: Nevada, which is more like the Southwest average than like that of the other Far West states; Iowa, which in some respects more closely approximates the Northwest average than the average for the Middle States; and Maryland and West Virginia, which resemble the average for the Southeast.

The charts may be classified according to two major types, an understanding of which is useful as an aid in predicting future trends. Whether the trends during earlier years declined, rose, or remained firm makes no difference, excepting perhaps to provide a not very significant subclassification of each of the major types. The important differentiating characteristic is the crossing-over of the two trend lines. Type X, in which the trend lines cross, is illustrated by

South Dakota and Massachusetts; Type H, in which the trend lines have not crossed, is illustrated by New Jersey and Oklahoma. One may confidently predict for Type X that, as population-age structure and promotional policies stabilize, the curve for Grades II–V (the "constant" curve) will once more cross the curve for Grades VI–VIII (the "variable" curve) and, regardless of subsequent reversals, eventually remain in position above it. Prediction relative to Type H is less certain. Where a marked downward trend in both curves has already begun, it is doubtful that the curves will ever cross; but where, regardless of the behavior of the "constant" curve, the "variable" curve is still rising—as in Georgia—there is some likelihood that the curves will eventually cross. Much depends on the imminence of influences resulting from changes in the age composition of the population. If these are delayed or are obscured by the influences of other factors, the curves are likely to follow the pattern of Type H; otherwise they may be expected to reverse positions for a while, as in the pattern of Type X.

This treatment of the subject of state enrolment trends has been, as was predicted, exceedingly sketchy. Each state could be given a comprehensive article in itself. The purposes here have been (1) to indicate some possibilities in the methods and techniques of approach to analysis of the problem and (2) to attempt to evaluate broadly some of the evidence on the relation between enrolment trends and population trends. As regards the first, suggestion has been made, for purposes of direct comparison of states, of a technical device for the simplified representation of elementary-school enrolment trends. As regards the latter, the data have confirmed, though by no means convincingly, the tentative conclusion of the writer's earlier study: for the present, enrolment trends are so obscured by other major variables, such as, possibly, improvements in grading and promotional policies and population migrations resulting from economic depressions, that any attempt to infer a direct relation between population-age trends and elementary-school enrolment trends would constitute an unwarrantably particularized deduction.

The need for further research into the effects of urban-rural and negro-white differences and for a thorough analysis of trends in enrolments for Grade I is even more strongly evident now than it was in the preceding article.

SELECTED REFERENCES ON ELEMENTARY-SCHOOL INSTRUCTION

III. The Subject Fields—Continued

*

This list of references is the third of the annual series relating to instruction at the elementary-school level. The first list contains items on the curriculum, methods of teaching and study, and supervision. The second list contains items grouped under the following subject fields: reading, English, spelling, handwriting, the social sciences, and geography. The present list covers the remaining subject fields at the elementary-school level and is the last of the series of three dealing with elementary-school instruction.

ARITHMETIC[1]

G. T. Buswell
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The following references were selected from a total of sixty-one articles or books published from July, 1937, to June, 1938. They contain both critical and research materials. The proportion of new research this year seems smaller than in any year since 1925, when the writer prepared his first bibliography on arithmetic.

556. Baxter, Bernice. "Trends in Placement of Topics in Arithmetic," *California Journal of Elementary Education*, VI (May, 1938), 227–35.
An application of the findings of research to problems of grade placement.

557. Brownell, William A. "Readiness and the Arithmetic Curriculum," *Elementary School Journal*, XXXVIII (January, 1938), 344–54.
A critical appraisal of the evidence on readiness. Contains a bibliography of thirty-four references.

558. Brownell, William A. "A Critique of the Committee of Seven's Investigations on the Grade Placement of Arithmetic Topics," *Elementary School Journal*, XXXVIII (March, 1938), 495–508.
A penetrating criticism of grade-placement studies. Contains a good bibliography.

[1] See also Items 178 (Polkinghorne) and 181 (Sueltz) in the list of selected references appearing in the April, 1938, number of the *Elementary School Journal*.

559. BROWNELL, WILLIAM A. "Two Kinds of Learning in Arithmetic," *Journal of Educational Research*, XXXI (May, 1938), 656–64.

A critical article showing the implications for arithmetic of two theories of learning: (1) by "repetition" and (2) by "insight."

560. BRUECKNER, LEO J., with the co-operation of G. T. BUSWELL, FREDERICK B. KNIGHT, GUY M. WILSON, and CLIFFORD WOODY. "Special Methods and Psychology of the Elementary-School Subjects: Arithmetic," *Review of Educational Research*, VII (December, 1937), 453–63, 545–47.

A review of research in arithmetic from July, 1934, to July, 1937. Supplemented by a bibliography of fifty titles.

561. BUCKINGHAM, B. R. "Significance, Meaning, Insight—These Three," *Mathematics Teacher*, XXXI (January, 1938), 24–30.

A critical evaluation of the implications of modern psychology for the teaching of arithmetic.

562. BUSWELL, G. T. "Deferred Arithmetic," *Mathematics Teacher*, XXXI (May, 1938), 195–200.

A critical discussion of proposals to postpone arithmetic.

563. GORMAN, FRANK H. "The Arithmetic Vocabulary of the Elementary-School Teacher," *Elementary School Journal*, XXXVIII (January, 1938), 373–79.

Reports a comparison of the technical vocabularies in arithmetic of elementary-school teachers and students of elementary education.

564. GROSSNICKLE, FOSTER E. "Appraising the Program for Teaching Division," *Appraising the Elementary-School Program*, pp. 361–68. Sixteenth Yearbook of the Department of Elementary School Principals. Bulletin of the Department of Elementary School Principals, Vol. XVI, No. 6. Washington: Department of Elementary School Principals of the National Education Association, 1937.

A useful interpretation of the present state of knowledge relating to the teaching of division.

565. GROSSNICKLE, FOSTER E. "The Effectiveness of Checking Subtraction by Addition," *Elementary School Journal*, XXXVIII (February, 1938), 436–41.

Reports an experiment with seven groups of third-grade children. Finds checking under certain conditions not useful.

566. KENWRICK, EVELYN E. *Number in the Nursery and Infant School.* London, England: Kegan Paul, Trench, Trubner & Co., Ltd., 1937. Pp. xii+252.

An interesting treatment by an English writer of the theory and the content of pre-primary arithmetic. Contains much concrete material.

567. MORTON, ROBERT LEE. *Teaching Arithmetic in the Elementary School:* Vol.

I, Primary Grades, pp. x+410; Vol. II, Intermediate Grades, pp. xii+538. New York: Silver Burdett Co., 1937 and 1938.

A comprehensive and an intelligent treatment of the subject. An outstanding publication.

568. SCHONELL, FRED J. *Diagnosis of Individual Difficulties in Arithmetic.* Edinburgh, Scotland: Oliver & Boyd, Ltd., [1937]. Pp. xii+116.

An elaborate diagnostic study based on tests constructed by the author. Provides detailed techniques of diagnosis. A valuable contribution from abroad.

569. SHOUSE, J. B. "The Difficulty of the Concrete," *School Science and Mathematics*, XXXVII (November, 1937), 937–45.

A discussion of the meaning of concrete and abstract in arithmetic.

570. SMITH, HENRY LESTER, and EATON, MERRILL T. "An Analysis of Efficiency in Addition," *Twenty-fourth Annual Conference on Educational Measurements*, pp. 52–78. Bulletin of the School of Education, Indiana University, Vol. XIII, No. 4. Bloomington, Indiana: School of Education, Indiana University, 1937.

Reports an investigation with college students, using different conditions of drill in addition. Contains tables, graphs, and a bibliography.

571. THIELE, C. L. "An Incidental or an Organized Program of Number Teaching?" *Mathematics Teacher*, XXXI (February, 1938), 63–67.

A critical discussion of the problem.

572. WHEAT, HARRY GROVE. *The Psychology and Teaching of Arithmetic.* Boston: D. C. Heath & Co., 1937. Pp. x+592.

A comprehensive treatment of the subject, covering all levels of the elementary school.

573. WOODY, CLIFFORD. "Arithmetic," *What Does Research Say?* pp. 56–68. Bulletin No. 308. Lansing, Michigan: State Department of Public Instruction, 1937.

A very useful article for teachers. Gives an answer to sixteen specific questions in the light of present research findings.

574. WOODY, CLIFFORD. "A General Educator Looks at Arithmetic Readiness," *Mathematics Teacher*, XXX (November, 1937), 314–21.

A good critical discussion. Considers the problem of readiness at all levels.

SCIENCE

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This bibliography on science in the elementary school includes articles, brochures, research studies, and books published during the interval of June, 1937, to June, 1938.

575. ADAMS, AGNES L. (Compiler). *Sharing Experiences through School Assemblies*. Washington: Association for Childhood Education, 1938. Pp. 40.

A compilation of materials dealing with school assemblies. It is sprinkled through with suggestions on how science may be used in this work.

576. BEAUCHAMP, WILBUR L., BLOUGH, GLENN O., and MELROSE, MARY. *Discovering Our World:* Book I, pp. 288; Book II, pp. 252. Chicago: Scott, Foresman & Co., 1937 and 1938.

The first and second books in a series of "basic studies in science" for the middle grades.

577. BLOUGH, GLENN O. "Studying Trees," *Instructor*, XLVII (March, 1938), 49–58.

An illustrated unit giving an overview and suggested procedures for teaching. The subject is developed separately for the primary, the middle, and the upper grades.

578. BLOUGH, GLENN O. "They Can't Read," *School Science and Mathematics*, XXXVIII (June, 1938), 627–32.

A discussion of a problem facing most teachers of science in Grades V–VII, inclusive.

579. CROXTON, W. C., and OTHERS. "Functional Outcomes of Science Teaching in the Elementary School," *NCES News Notes*, IV (November, 1937), 189–92. Salem, Massachusetts: National Council on Elementary Science (305 Lafayette Street).

A discussion of functional versus informational outcomes and a listing of such outcomes in terms of children's activities in their everyday living.

580. DUNCAN, CARL D. "Insects as Enemies and Benefactors of Mankind," *Science Guide for Elementary Schools*, IV (October, 1937), 1–85. Sacramento, California: State Department of Education.

This issue of the instructive and popular science guide for teachers discusses insects in terms of their place in the living world, their food and feeding habits, their place as food for other animals, their relation to flowers, their commercial importance, their relation to the soil and to decay, methods of controlling them, etc. Helpful suggestions to teachers are included.

581. DUNN, FANNIE W. "Natural Sciences in the Modern Rural School," *Newer Types of Instruction in Small Rural Schools*, pp. 73–86. Yearbook of the Department of Rural Education. Washington: Department of Rural Education of the National Education Association, 1938.

A specialist in rural education discusses the place and the functions of science in the small rural school.

582. EBEL, ROBERT L. "What Is the Scientific Attitude?" *Science Education*, XXII (January and February, 1938), 1–5, 75–81.

A critical discussion of what constitutes the scientific attitude. One of the best brief treatments of this difficult subject that the reviewer has seen. The February issue contains a list of the elements of the scientific attitude and the means by which they were derived. While this article does not specifically deal with elementary science, it has been included in this list of selected references because of its significance to those engaged in teaching the subject.

583. GORDON, ROBERT B. "An Outdoors School for the Elementary Science Teacher," *School Science and Mathematics*, XXXVIII (January, 1938), 67–71.

Lists and discusses the advantages of the outdoor school in the preparation of teachers of science in the elementary school. Its advantage over formal instruction in the colleges is that it is (1) a place to learn informal methods of presenting the facts of elementary science, (2) a place to acquire firsthand experience with biological materials, and (3) a place for healthful recreation and experience.

584. GRAVES, GEORGE W. "Soil, Its Use and Conservation," *Science Guide for Elementary Schools*, IV (September, 1937), 1–54. Sacramento, California: State Department of Education.

One of the best treatments for teachers of the subject. Stresses the social and the economic implications in soil conservation.

585. HANSEN, VIOLET. "Sky Study," *Grade Teacher*, LV (January, 1938), 12–13, 64–65.

A unit drawn from the field of astronomy. Considers the earth and other planets; sun, moon, and stars; and stories of the constellations. Well illustrated and helpful in children's activities.

586. HEFFERNAN, HELEN. "Science in the Professional Education of Teachers for the Elementary School," *California Journal of Elementary Education*, VI (November, 1937), 100–104.

"Intelligent participation in our culture is predicated upon an understanding of its scientific bases. The lag between scientific advancement and social adjustment can be decreased only as understanding develops concerning the need for the application of a dynamic social theory to the institutions of social life. Human welfare can be guaranteed only as the products of scientific and technological development become more widely accessible and more generously shared by all the people." This statement sets the theme for the author's program of science in the education of teachers. One of the best articles of the year.

587. HULTZ, HELEN LORRAINE. "An Activity: When Leaves Come Out," *Science Education*, XXII (March, 1938), 123–28.

An account of an activity with a class of children in the lower elementary school. Contains a day-by-day record of the children's experiences in answering questions from observation. Replete with simple experiments, suggestions for exhibits, and suggestions for the keeping of scientific records and data.

588. JOHNSON, EMMA C. "Science in an Intermediate Classroom," *School Science and Mathematics*, XXXVII (December, 1937), 1042–44.

An interesting account of the science activities in Grade V of the Loring School in Minneapolis. Shows how the teacher and the children used the nearby natural environment for study of plant and animal relationships, as well as a source of supply for biological materials to bring to the classroom.

589. LUPONE, O. J. "Some Problems That Must Be Answered in Elementary Science," *School Science and Mathematics*, XXXVIII (June, 1938), 666–72.

A discussion of some vital problems that confront the classroom teacher who is beginning to introduce science into the program. The problems discussed center in the conception of learning, grade placement of content, the use of textbooks, choice of equipment, and testing and evaluation of results.

590. MELROY, RUTH M. "Science—An Absorbing Interest," *Childhood Education*, XIV (December, 1937), 176–77.

A description of the course of study in science for the primary grades in the District of Columbia.

591. PERSING, ELLIS C. "Science Materials and Equipment for the Elementary-School Program," *Science Education*, XXI (October, 1937), 136–40.

A presentation of the need for more experimentation in science for the elementary school, followed by a list of apparatus that may be constructed or purchased. This list will prove especially helpful to teachers initiating a science laboratory in their classrooms.

592. Round Robin Series: *Electricity Comes to Us* by Rose Wyler and Warren W. McSpadden; *Oil Comes to Us* by Rose Wyler and Warren W. McSpadden; *Steel* by Marguerite Schwarzman. New York: Grosset & Dunlap, 1937. Pp. 30 each.

A series of attractively illustrated booklets for the upper grades, telling in an easily understood way the story of the topic indicated by the book title.

593. SHARPE, PHILIP B. "Elementary Science Teaching," *School Science and Mathematics*, XXXVIII (February, 1938), 120–25.

A high-school teacher of science explains to classroom teachers in the elementary school the three historical stages in the development of the scientific method and shows how each of these stages may be used in attacking problems that face children. While this reviewer is in thorough agreement with the author's plea for the fullest use of the scientific method as a means for the solution of problems, he feels that the author, in his enthusiasm (and possibly lack of experience with young children), has gone too far by recommending an absolute minimum use of reference materials. A judicious use of reference materials does not necessarily defeat the method of science; indeed, it is one means of attaining it.

594. STEVENS, BERTHA. "First Years in Science—What Are the Goals?" *School Science and Mathematics*, XXXVIII (January, 1938), 36–40.

For the kindergarten and the first three grades the author would promote as goals: (1) the concept of nature as one whole; (2) direct, actual, tangible experience with the natural environment; and (3) experience with nature and science that involves the child's emotions, intellect, imagination, and initiative. The author shows how these goals may have a measure of realization through the study of the earth in relation to other members of the universe.

595. "Teachers' Number," *Cornell Rural School Leaflet*, XXXI (September, 1937), 3–64.

This issue of the leaflet features supplementary material for use with the New York State course of study in elementary science.

596. WEBB, HANOR A. "Our Thousand and Two Childish Questions," *School Science and Mathematics*, XXXVIII (May, 1938), 504–10.

An analysis of types of questions asked by children from nearly every state in the Union which were gathered by the author through his "Lost Jewel" column in *Current Science*, a weekly classroom paper. The author believes that the unduly large number of questions asking who was the first to invent such and such a thing or when was a certain article first made and used, is a result of the fetish made in teaching names and dates of discovery. He says: "From our teaching, from our textbooks, reference books, and other science literature of today, our youngsters have received the idea of invention as a sort of catastrophe similar to creation, rather than a process which is definitely evolution."

597. WYLER, ROSE. *The World Is Round.* Milwaukee, Wisconsin: E. M. Hale & Co., 1937. Pp. 48.

The first booklet on science to be issued in the popular Picture Scripts. Simple, accurately worded, and well-illustrated science material based on children's interests and experiences. For seven- and eight-year-old children. It is to be hoped that more inexpensive materials of this type will soon be available.

598. WYLIE, C. C. *Our Starland.* Chicago: Lyons & Carnahan, 1938. Pp. 378.

An attractive and accurate book on astronomy for the better readers in Grades V and VI. Written by an astronomer, this book presents some material new to the elementary school. The explanation of seasonal change (always a difficult topic to teach, largely because teachers themselves do not have a clear concept of it) is particularly excellent.

MUSIC[1]

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599. ANNETT, THOMAS. *Music in the Rural School.* Boston: Boston Music Co., 1938. Pp. 124.

A brief treatise on the course of study, its organization and administration, and methods of teaching in various phases of music, such as vocal, instrumental,

[1] See also Items 263 (McEachern), 264 (Mursell), 266 (Pitts and Gray), and 269 (Wilkinson) in the list of selected references appearing in the March, 1938, number of the *School Review*.

appreciation, and creative. A bibliography of materials is included. Although written primarily for the teacher in the rural school, the book will be helpful also to instructors in urban systems.

600. BIRGE, EDWARD BAILEY. *History of Public School Music in the United States*. Boston: Oliver Ditson Co., 1937 (revised). Pp. 310.

A revised edition of the book first published in 1928. The new material treats briefly recent events, innovations, and trends and brings the book up to date.

601. BLIND, E. E. "An Experiment with Monotones," *Music Educators Journal*, XXIV (March, 1938), 37–39.

Gives procedures and results of an experiment in teaching problem singers, or so-called "monotones," how to "carry a tune." The author states that the results were successful.

602. DOIG, DOROTHEA. "Can Everyone Use Music Tests?" *Music Educators Journal*, XXIV (February, 1938), 29, 32.

The writer of the article thinks that much of the criticism leveled against music tests is due to lack of understanding and information. She urges that, before giving the tests, teachers be adequately prepared to administer them and to interpret the results.

603. FULLERTON, C. A. "Reasons for Radical Changes in School Music," *Midland Schools*, LII (January, 1938), 159–61.

An article based on the experiences and the research of the author. He points out fallacies of many of the traditional theories and practices in music-teaching, particularly in the field of reading, and suggests ways for improvement.

604. GIDDINGS, THADDEUS. "The Good Old Do-Re-Mi," *Music Educators Journal*, XXIV (December, 1937), 32, 34.

An advocate of the sol-fa syllables gives his reasons for using them in teaching music-reading in the schools.

605. HENDRICKSON, GORDON. "Needed Research in Music Education," *Journal of Educational Research*, XXXI (May, 1938), 672–77.

Discusses phases of music-teaching in which research is needed if the effectiveness of the work is to increase.

606. MURRAY, JOSEPHINE, and BATHURST, EFFIE G. *Creative Ways for Children's Programs*. New York: Silver Burdett Co., 1938. Pp. xiv+396.

Gives materials and directions for programs of different types, in which music plays an important role. Chapters treat the creative program and the socialized school, the occasions of programs, creativeness in the major activities of programs, costumes, stage properties, rehearsals, whole-school participation in programs, etc. A selective, annotated bibliography is appended.

607. MURSELL, JAMES L., and GLENN, MABELLE. *The Psychology of School Music Teaching*. New York: Silver Burdett Co., 1938 (revised). Pp. vi+386.

A revised edition of the book originally published in 1931. The bibliographies at the close of chapters and the chapter on tests in music have been extended to include recent studies. A section on giving marks in music has been added.

608. OTTERSTEIN, ADOLPH W., JR. "Music in the Activity Program," *Music Educators Journal*, XXIV (February, 1938), 25, 27.

A report of an integrative plan used in Grades V and VI of a school in San Jose. Gives objectives of the activity, materials, approaches, and results.

609. PERHAM, BEATRICE. *Music in the New School.* Chicago: Niel A. Kjos Music Co., 1937. Pp. x+148.

An account of the music activities developed and carried on by the author in the University School at Ohio State University. Gives philosophy and underlying principles of the program and describes materials, procedures, and results.

610. RICH, FRANK M. "Moral Education with Simple Musical Instruments," *Educational Method*, XVII (December, 1937), 107–13.

An account of how simple instruments, such as fifes, harmonicas, and ukeleles, may be used to develop right attitudes among the players, as well as musical skill and interest.

ART

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611. *Art Education Today.* Sponsored by Members of the Fine Arts Staff of Teachers College, Columbia University. New York: Teachers College, Columbia University, 1938. Pp. 134.

An annual publication devoted to problems of art education. Contains discussions of the following topics having special application to the elementary school: "New Directions for Art," "The Meaning of Art in Education," "Modern Art and Social Problems," "A Way of Teaching Art," "The Art Teacher's Place in the Curriculum," and "Art as an Approach to Children's Emotional Problems."

612. BIRREN, FABER. *The Wonderful Wonders of Red-Yellow-Blue.* New York: McFarlane, Warde, McFarlane, Inc., 1937. Pp. 48.

An attractively illustrated book (mostly marginal designs in color) with many interesting facts about color. Intended to introduce children to the world of color.

613. BURLEIGH, BERTHA BENNET. *Circus.* New York: G. P. Putnam's Sons, 1938. Pp. 128.

A picture-book with text. The circus in all its infinite variations is presented through pen sketches. The profuse illustrative material should be helpful to teachers in developing the drawing of animals and figures and in planning the art aspects of a unit on the circus.

614. CHANDLER, ANNA CURTIS. *Treasure Trails in Art.* Boston: Hale, Cushman & Flint, Inc., 1937. Pp. xvi+224.

An author of many books on art for children tells the stories of twenty master-painters and presents in full color twenty of their masterpieces that have special appeal for young people. The book aims to develop a love for, and appreciation of, great pictures and to furnish authentic information about each artist and the time in which he lived.

615. DOBBS, ELLA VICTORIA. *First Steps in Weaving.* New York: Macmillan Co., 1938. Pp. x+86.

A book on weaving techniques. A guide for teaching the craft in elementary schools and in beginning courses in schools of higher level.

616. DOUST, LEN A. *Drawing Lessons for Children.* New York: Frederick Warne & Co., Inc., 1937. Pp. 120.

Presents simple guided steps in teaching drawing to children of five to ten years of age. Based on academic concepts rather than on progressive-education ideals of teaching.

617. HAGGERTY, MELVIN E. *Enrichment of the Common Life.* Minneapolis, Minnesota: Published for the Owatonna Art Education Project by the University of Minnesota Press, 1938. Pp. 36.

An inspiring publication written by Dr. Haggerty shortly before his death. A restatement and an expansion of his philosophy and theory of art and the contribution which it can make to living.

618. HOLME, GEOFFREY. *The Children's Art Book.* New York: Studio Publications, 1937. Pp. 96.

A book based on enjoyment of art in everyday life. Carefully selected pictures and the accompanying interesting stories furnish for the child an understanding and an appreciation of beauty in a wide range of subjects, such as animals and pets, landscapes, flowers, ships, streamline trains, airplanes, speeding automobiles, and genre pictures of various kinds.

619. POTTLE, THEODORA. *My Own Picture Book,* Grades I–VIII. Champaign, Illinois: Johnson-Randolph Co., 1937. Pp. 36 each.

A series of eight workbooks for picture study. Each book gives descriptions of nine masterpieces of painting, with questions to be answered and suggested activities. A set of color miniatures of the paintings is attached for pasting into the book.

620. WHITFORD, WILLIAM G., with the co-operation of NORMAN C. MEIER and JOSEPH E. MOORE. "Special Methods and Psychology of the Elementary-School Subjects: Art," *Review of Educational Research,* VII (December, 1937), 464–66, 547–51.

Presents a survey of ninety-four research studies in the arts completed during the period of 1934–37.

INDUSTRIAL ARTS[1]

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621. BAWDEN, WILLIAM THOMAS. "Review of Industrial Education for the Biennium, 1936–37," *Industrial Education Magazine*, XL (March, 1938), 49–62.

A scholarly summary and analysis, continuing a series of increasing interest and helpfulness. Treats "The Youth Problem," "Federal Aid for Vocational Education," "Advisory Committee on Education," "Training for Diversified Occupations," "Relation of the Public High School to Vocational Education," and "Progress in Industrial Arts."

622. BENNETT, CHARLES A. "Teaching Techniques," *Industrial Education Magazine*, XL (January, 1938), 32–34.

One in a series of articles under the general title "Teaching Methods and Materials," presented by the editor of the journal to encourage teaching that demands creative thinking on the part of pupils.

623. BERRY, GODFREY GLENN. "Setting Up a General Industrial-Arts Shop in a Small High School," *Industrial Education Magazine*, XL (May, 1938), 122–25.

True to its title, this article treats purposes, plans, subjects, equipment, and results.

624. CHRISTY, ELMER W. "Psychology and Methods in the High School and College: Industrial Arts," *Review of Educational Research*, VIII (February, 1938), 47–50, 92–95.

A documented review of studies reported during the past three years on objectives, methods, enrichment, safety, selecting textbooks and equipment, graduate study, and trends.

625. COLEMAN, J. B., and OPPERMANN, W. F. "School Production for the Market," *Industrial Arts and Vocational Education*, XXVII (June, 1938), 235–40.

Gives the viewpoint of labor and of the employer on the value of the vocational-education program. Reviews the plan of operation and co-operation at the vocational school in La Crosse, Wisconsin, where the authors are director and co-ordinator, respectively.

626. *The Expanding Program of Industrial Education.* Washington: American Association of School Administrators of the National Education Association, 1938. Pp. 48.

A set of nine papers presented by leaders in industrial education at group meetings on three afternoons at the 1938 convention of the association held at Atlantic City.

[1] See also Item 500 (Sotzin) in the list of selected references appearing in the October, 1938, number of the *School Review*.

627. FRASIER, P. G. "Technique for a Vocational Education Survey of Local Communities." Misc. Res. –1. Des Moines, Iowa: State Board for Vocational Education, 1938. Pp. 50 (mimeographed).

Suggestive schedules and forms are presented for use by local school officials in studying the occupational training needs of their communities. Covers purpose, outline of survey, method and procedure, etc., in a direct and serviceable manner.

628. GETMAN, ARTHUR K. "Vocational Education and Progress," *Phi Delta Kappan*, XX (February, 1938), 188–89.

A brief, forceful, and philosophic statement, made as part of the presidential address at the 1937 annual convention of the American Vocational Association.

629. GORE, L. LAWTON, and ALEXANDER, CARTER. "Guide to the Literature on Industrial Arts," *Industrial Education Magazine*, XL (March, 1938), 70–76.

Indicates materials, as well as a technique or a check list, for persons who would make use of the increased and diversified literature of industrial arts.

630. KROLL, HARRY W. "Industrial Arts for Girls," *Industrial Arts and Vocational Education*, XXVII (April, 1938), 142–47.

The most extensive and worthy writing on the subject which has appeared to date. Deals with justification for the course, objectives, and instructional units. Includes a bibliography. On the basis of a questionnaire, units are evaluated and ranked as to importance.

631. PROFFITT, MARIS M. (Chairman). *Industrial Arts—Its Interpretation in American Schools*. Report of a Committee Appointed by the Commissioner of Education. United States Office of Education Bulletin No. 34, 1937. Pp. vi+126.

A comprehensive and forward-looking statement of the origins, functions, practices, and problems of industrial arts as "a curriculum area rather than a subject or course" and as a phase of general education. Treatment is by types or levels of schools, and much attention is given to offerings for adults. A chapter on administration and supervision is included.

632. SCHMIDT, FRED J., JR. "A Point of View," *Industrial Arts and Vocational Education*, XXVII (June, 1938), 227–31.

A summarization of literature pointing to the better co-ordination or integration of art, industrial arts, and household arts, and of all these with the more "general" subjects of the curriculum. A good bibliography is included.

633. "School Shop Annual," *Industrial Arts and Vocational Education*, XXVII (March, 1938), 85–132 and 1A–80A.

The "School Shop Annual" is a feature in the growing literature of industrial education. The present number contains seven articles on "School Shops," six on "School-Shop Planning," five on "Shop Management," four on "Shop Courses," one on "Shop Safety," and four miscellaneous articles entitled,

respectively, "The Ideal Teacher," "Connecting School and Modern Industry," "Securing Interest in the Industrial-Arts Shop," and "An Experiment in Correlation." There are also equipment lists and advertisements of tools, machines, and supplies.

634. SCHWEICKHARD, DEAN M. "Possibilities for Vocational-Education Courses in Regular High Schools," *Industrial Education Magazine*, XL (January, 1938), 8–10.

A brief, direct, and timely statement. Discusses the need for courses, types of courses, pupils' schedules, teachers' schedules, and teachers' qualifications, in trade fields, homemaking, and part-time continuation classes.

635. SHIMMICK, JOHN JOSEPH. "Thirty-five Claims for the Textbook in Industrial Arts," *Industrial Education Magazine*, XL (March, 1938), 92–94.

A brief report of an extensive survey of the literature in support of a more general use of basic textbooks in the presentation of shop and drawing courses.

636. SMITH, ROBERT E. "Teaching Methods Which Increase Industrial-Arts Achievements," *Industrial Arts and Vocational Education*, XXVII (May, 1938), 185–88.

Explains objectives in uncommon variety and detail. Discusses methods, procedures, and activities assumed to guarantee these outcomes in the changed lives of pupils.

637. STUDEBAKER, J. W. "Education for the 85 Per Cent," *American Vocational Association Journal and News Bulletin*, XIII (February, 1938), 3–9. (Also in *Industrial Arts and Vocational Education*, XXVII [May, 1938], 179–82.)

The United States Commissioner of Education discusses current social conditions, training needs, program purposes, and patterns.

638. VAN DEUSEN, CLINTON SHELDON. "Industrial Arts in the Small School," *Industrial Education Magazine*, XL (May, 1938), 126–29.

An inspiring and descriptive statement of how real problems have been met in one of the most difficult school situations. The county is the administrative unit in Medina County, Ohio. The seemingly necessary plan of having teachers with combination schedules has been largely discontinued in industrial arts and other "special" subjects.

639. WIDDOWSON, H. T. "Training Leaders for Retail Sales Conferences." St. Paul, Minnesota: St. Paul Public Schools and Vocational Education Division of the State Department of Education, 1938. Pp. 60 (mimeographed).

A report of a course, sixty hours in length, for the training of leaders who will, in turn, conduct retail-sales conferences under city-school sponsorship and with federal moneys given in aid under the George-Deen Law. Provides illustrations of co-operative planning, conference procedure, materials of instruction, practice periods, and evaluation. A bibliography is appended.

HOME ECONOMICS[1]

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640. BAILEY, C. O. "Demonstration versus Discussion in Teaching Laboratory Techniques in Food Preparation at the Junior High School Level." Unpublished Master's thesis, Iowa State College of Agriculture and Mechanic Arts, 1937. (Abstracted in "Notes on Graduate Studies and Research in Home Economics and Home Economics Education 1937–38," pp. 118. United States Office of Education, Misc. 2086, June, 1938.)

A comparison of the outcomes in fundamental techniques and manipulative processes secured from the two methods of teaching was in favor of the demonstration method.

641. BROWN, CLARA M. "Home-Economics Survey." St. Paul, Minnesota: Public Secondary Schools, 1938. Pp. 44 (mimeographed).

An investigation was made in one city of the wage-earning experiences of girls in Grades VII and VIII and in senior high school and of the future plans of these girls. Recommendations were made regarding the needs to be met by home-economics teachers in that city.

642. *Course of Study in Homemaking*, pp. 10–26. Bulletin of the State Department of Education, Vol. XIII, No. 6. Austin, Texas: State Department of Education, 1937.

Four suggestive units for children below Grade VIII are included, with the objectives and concepts to be developed and suggested types of experiences.

643. FAULKNER, MARY. "Meeting the Needs of Over-Age Dull Normal Children," *Journal of Home Economics*, XXIX (October, 1937), 551–52.

A description of the methods used by one city system to help over-age pupils in elementary school develop ability in homemaking and self-confidence in meeting situations.

644. *A Guide for the Improvement of Instruction with Sample Source Materials*, pp. 11–66. State Department of Education Bulletin No. 123. Indianapolis, Indiana: State Department of Education, 1938.

The suggestions for emphasis in home economics in Grades VII and VIII are accompanied by guides for studying the needs in local situations.

645. HATCHER, LATHAM. "Home Economics Service in Rural Areas," *Journal of Home Economics*, XXX (June, 1938), 380–83.

To meet the need for homemaking training for rural girls involves emphasis on home economics as a part of the training of rural-school teachers, the employment of itinerant home-economics teachers to work with rural teachers,

[1] See also Items 237 (Lindeman) and 242 (Walsh) in the list of selected references appearing in the March, 1938, number of the *School Review*.

and practical experience in underprivileged rural areas for prospective home-economics teachers.

646. MEVES, IRENE, and TRYON, HELEN L. "Home Arts in the Integrated Program in the Elementary Schools," *Practical Home Economics*, XV (October, 1937), 355–84; "An Activity Unit for Second Grades," ———, (November, 1937), 397, 428, 430, 432; "Home Arts in the Integrated Program,"———, (December, 1937), 448–49.

Describes a plan of co-operation between grade and home-economics teachers and also the experiences and the outcomes of the two units which they developed.

647. "New Ways of Teaching Home Economics—A Symposium," *Journal of Home Economics*, XXX (May, 1938), 310–23.

Descriptions of emphases and procedures used in several junior and senior high schools.

648. ODELL, LILLIAN E. "A Cafeteria Unit," *Arizona Teacher*, XXVI (May, 1938), 244–45.

Describes experiences in health, language, writing, spelling, number work, art, etiquette, and food values involved in this unit for second-grade pupils.

649. REEVES, GRACE G. "Home Living Problems," *Journal of Home Economics*, XXX (May, 1938), 289–92.

Discusses the fivefold contribution of home economics and the means of developing a home-living emphasis in each of the twelve school grades of one school.

650. SOWERS, ALICE. "Parent-Child Relationships from the Child's Point of View," *Journal of Experimental Education*, VI (December, 1937), 205–31.

Some of the family problems and the social-relations problems of young people between the ages of ten and twenty-two were revealed through essays and analyzed according to age and sex.

651. SPAFFORD, IVOL. "Home Economics for the Other Sex," *Practical Home Economics*, XVI (January, 1938), 12, 28.

Suggests some points of emphasis and describes a few plans for work with boys at various grade levels.

652. STEVENS, WILLIE. "Thanksgiving in a Fifth Grade," *Alabama School Journal*, LV (November, 1937), 12.

Home life and the influences which shaped the ideas and the characteristics of a people were studied through an investigation of the origin and the meaning of Thanksgiving Day in America.

653. STRANG, RUTH; CURTISS, MAYBELLE; and OVERS, HELEN. "Home Economics as Guidance," *Journal of Home Economics*, XXX (January, 1938), 1–5.

Discusses the guidance opportunities open to home-economics teachers through (1) personal relations with students, (2) skills and information to be developed, (3) provisions for individual differences, and (4) individual counseling.

LIBRARY TRAINING

EVANGELINE COLBURN
University of Chicago

654. ALDRICH, GRACE L. "A Library Catalogue Lesson," *Elementary English Review*, XIV (October, 1937), 209–12.

A practical and clear description of lessons used in fourth-grade classes of the Horace Mann School of Teachers College, Columbia University, for the purpose of developing skill in the use of the card catalogue.

655. ALEXANDER, CARTER. "A Library Aladdin Lamp for the Classroom," *National Elementary Principal*, XVII (December, 1937), 69–71.

Describes training intended to help children in the use of card files. Also describes how pupils, with the aid of the teacher, may make and use files in the classroom and have practice in finding material which is arranged alphabetically.

656. MOTT, CAROLYN, and BAISDEN, LEO B. *The Children's Book on How To Use Books and Libraries*, pp. 208; *Children's Library Lesson Book*, pp. 32. New York: Charles Scribner's Sons, 1937.

A simple textbook and an attractive workbook in library science which have been tried out with children for several years in the William Land Elementary School in Sacramento, California. For Grade IV and beyond.

657. RAMSEY, ELOISE. "Introducing the Illustrator," *Childhood Education*, XIV (April, 1938), 344–48.

Describes ways of giving young children intimate experiences with beautiful books as a preliminary to library training.

658. SAMUELSON, AGNES. "Agnes Samuelson Talks to Teachers about School Libraries," *Instructor*, XLVII (March, 1938), 10, 77.

Treats of ways of giving children meaningful experiences in small libraries in caring for books, in using books, etc.

659. SAYERS, FRANCES CLARKE. "Lose Not the Nightingale," *Horn Book*, XIII (July–August, 1937), 222–35.

This paper, which was read before the section for library work with children at the annual conference of the American Library Association in June, 1937, will be of interest to teachers of library work and reading. It is concerned with attitudes toward reading.

HEALTH AND PHYSICAL EDUCATION

D. K. BRACE
University of Texas

660. CONRAD, HOWARD L., and MEISTER, JOSEPH F. *Teaching Procedures in Health Education.* Philadelphia: W. B. Saunders Co., 1938. Pp. 160.

Tells how to select subject matter and how to plan and present lessons.

661. DAVIS, JOHN EISELE. *Play and Mental Health.* New York: A. S. Barnes & Co., Inc., 1938. Pp. xvi+202.

A discussion of how the growth and the development of wholesome mental expression is best attained through the integration of mental and bodily processes.

662. DEAN, VIRGINIA. "Social Dancing for Fifth and Sixth Grades," *Journal of Health and Physical Education,* IX (April, 1938), 220–21.

A description of procedures used in teaching this increasingly popular activity to elementary-school children.

663. DRENCKHAHN, VIVIAN V., and GROUT, RUTH E. "Health Materials for Rural Schools," *Journal of Health and Physical Education,* IX (March, 1938), 152–53.

Tells where health materials may be obtained.

664. ENGLISH, COLIN. "The Place of Physical Education in the Elementary School," *Physical Education, Health and Recreation Digest,* IV (March, 1938), 30.

Maintains that correlation of physical education with other school subjects is most desirable in promoting a well-rounded normal life.

665. GLASSOW, RUTH B., and BROER, MARION R. *Measuring Achievement in Physical Education.* Philadelphia: W. B. Saunders Co., 1938. Pp. 344.

May be used as an aid in selecting and evaluating tests for use in elementary schools.

666. GREGORY, ANNIE LAURIE. "The Story of Food," *Journal of Health and Physical Education,* IX (March, 1938), 131–33.

How one elementary-school class worked out a unit on foods.

667. HUSSEY, MARGUERITE M. *Teaching for Health.* New York: New York University Bookstore (18 Washington Place), 1938. Pp. xvi+312.

A general discussion of the relation of good health to effective living.

668. JONES, EDWINA L. "Organized Recess," *Physical Education, Health and Recreation Digest,* IV (March, 1938), 35–36.

The problem of the "hit-or-miss" recess is solved by making the recess a supplement to the physical-education period.

669. La Salle, Dorothy. *Physical Education for the Classroom Teacher.* New York: A. S. Barnes & Co., Inc., 1937. Pp. xii+210.

An aid to the classroom teacher who has only limited experience in the physical-education field.

670. McGinty, Margaret H. "Festivals in the School Program," *Journal of Health and Physical Education,* VIII (October, 1937), 465–68, 507–8.

A means of using every child in presenting physical-education activities to parents.

671. Rappaport, Mary B. "Headed for Healthful Living," *Journal of Health and Physical Education,* VIII (November, 1937), 529–31, 574.

A comprehensive discussion of the change in health education from a study of physiology to the promotion of healthful living.

672. Shafer, Mary S. *Rhythms for Children.* Music by Mary Morgan Mosher. New York: A. S. Barnes & Co., Inc., 1938 (revised). Pp. 48.

New rhythms added to a collection of rhythms formerly published in three pamphlets. The presentation in one volume should be convenient and valuable.

673. Smith, Helen Norman, and Coops, Helen L. *Physical and Health Education.* Chicago: American Book Co., 1938. Pp. xii+324.

An explanation of the work of the specialist in physical education from the viewpoint of the classroom teacher. Gives practical assistance in selecting program material.

674. Storey, Edward J. "Control of Colds in School," *Journal of Health and Physical Education,* IX (January, 1938), 35–37, 54.

Good instruction on the control of colds.

675. Wall, Frances P., and Zeidberg, Louis D. *Health Guides and Guards.* New York: Prentice-Hall, Inc., 1938 (revised). Pp. xii+380.

Intended for use in teaching health education.

Educational Writings

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REVIEWS AND BOOK NOTES

SCHOOL ADMINISTRATION IN THE SMALLER COMMUNITIES.—There can be little doubt that the problems of school administration in the smaller communities have had scant attention. Almost uniformly, the educational literature has directed attention to the complexities of organization, administration, and leadership in the large city schools. Yet the more intimate relation of the village superintendent to his community and his staff may produce problems more immediate and acute than those faced by his colleague in a city school. Consequently Goodier and Miller[1] have undoubtedly made a significant contribution by their comprehensive treatment of the problems of leadership in the smaller schools.

The work is exhaustive yet concrete. The larger principles of educational practices are always stated, and the application of the principles in practical situations is indicated. The book contains little statistical or original experimental data, but it reports numerous recognized studies and surveys of current practice. While the treatment is undoubtedly empirical, the application of principle and philosophy to policy and practice is adequately specific. This combination has resulted in what should prove to be a very useful manual for beginners in administration.

The book is also designed as a textbook for courses in elementary administration, and the questions and problems at the end of each chapter suggest many practical applications of principle and further detailed study. An excellent bibliography, specifically related to every problem discussed, provides a complete and ready reference for student and practitioner alike.

The authors have maintained a perspective which avoids both the remote abstraction of the theorist and the myopic distortion of the limited practitioner.

The reader is agreeably surprised by the scope of the book after having reacted to the limitations suggested by the title. Certainly nobody would quarrel with the authors over the need or the timeliness of this publication, but the reader experiences a faint regret that such an excellent and comprehensive treatment is concealed by a title which, by its reference to town and village schools, suggests a much more limited theme. The book could be consulted with profit by almost any person engaged in educational administration; yet some may not penetrate the disguise of the title. While it may be farfetched to engage in an academic discussion of terms, the reviewer believes that the inclusion of all lead-

[1] Floyd T. Goodier and William A. Miller, *Administration of Town and Village Schools*. St. Louis, Missouri: Webster Publishing Co., 1938. Pp. xiv+336. $2.00.

ership activities under "administration" may be somewhat misleading. Standing alone in the title, the term suggests the discredited artificial separation of administration and supervision. However, the authors apparently employed it as a general term including all the activities of responsibility. Perhaps some such term as "leadership" might have more appropriately expressed the modern and the democratic viewpoint of this extremely useful book.

V. L. BEGGS

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EXPERIMENTAL STUDIES OF THE EFFECT OF VOCABULARY TRAINING ON COMPREHENSION IN READING.—The findings of an investigation of the effects of specific teaching of meaning as compared with more or less incidental learning of vocabulary are reported in a monograph[1] by Professor William S. Gray and Miss Eleanor Holmes in one of the publications of the Laboratory Schools of the University of Chicago. This monograph drives another nail in the coffin of incidental learning as a means of acquiring specific knowledge or skills. The authors assume as their basic hypothesis that a crucial problem in the teaching of reading at the present time is that of developing the meanings of the extensive vocabularies required if children are to read the varied materials of the expanding curriculum.

It is pointed out that, according to Thorndike, the sixth-grade child needs to know from five thousand to ten thousand words and that by the end of Grade IX a pupil should have a vocabulary range of from ten thousand to twenty-five thousand words in order to comprehend the varied materials at that level. It is assumed that skilled teaching can make up the gap between the vocabularies which pupils have achieved and those that are theoretically desirable. The authors fail to note the equally valid assumption that reduction of the vocabularies used in textbooks in the middle grades and junior high school might simplify the problem still further.

With the basic hypothesis established, the monograph then proceeds to summarize existing data on the nature of meaning, the factors related to vocabulary growth, the types and causes of vocabulary difficulties, and methods of promoting vocabulary growth. This treatment is an excellent summary after the well-known and effective manner of Professor Gray.

The report then proceeds to state the experimental problem and to outline the procedures used in solving it. A preliminary study was conducted to determine whether pupils could recognize their deficiencies and needs with respect to the meanings of words. The findings were largely negative, although a more comprehensive experiment on this problem by Harvey C. Tilley ("A Technique

[1] William S. Gray and Eleanor Holmes, *The Development of Meaning Vocabularies: An Experimental Study.* Publications of the Laboratory Schools, No. 6. Chicago: Department of Education, University of Chicago, 1938. Pp. viii+140. $1.50.

for Determining the Relative Difficulty of Word Meanings among Elementary School Children," *Journal of Experimental Education*, V [September, 1936], 61–64) showed correlations of .53 to .97 between children's judgments of difficulty and their performances on multiple-choice tests. This fact, however, does not mean that children do not need guidance in enlarging meanings and does not detract from the significance of the Gray and Holmes report.

The major study of the experiment was organized to measure the effects on comprehension of incidental versus direct methods of developing vocabulary growth. Control and experimental groups of equivalent ability were used. The pupils in the experimental groups were given specific vocabulary training, while in the control group dependence was placed on incidental learning of vocabulary.

The results show that incidental learning is definitely inferior to direct teaching, that the experimental pupils excelled the control pupils in reading efficiency, and that the use of context alone in teaching meanings is inferior to direct methods of teaching. A supplementary study of methods of vocabulary development and a valuable appendix complete the volume.

The experiments here reported were well organized, administered, and controlled. The isolation of the experimental factor was carefully made. In addition to the significance and the value of the conclusions, the monograph is valuable for the many useful methods of vocabulary development which are presented. Teachers and supervisors of reading will find the book helpful.

The monograph should do much to call a halt to the use of incidental methods of vocabulary development. There is abundant evidence here that systematic guidance in learning complex skills is far to be preferred over incidental methods. Teaching children to read is not solely a problem of providing rich reading opportunities.

G. A. YOAKAM

University of Pittsburgh

ORGANIC CONCEPTION OF LEARNING IN THE ELEMENTARY SCHOOL.—The past ten years have witnessed much research in child growth and development and in the organic conception of learning, the preparation of some courses of study embodying the principles derived from such research, and the publication of some professional books on methods of teaching. A recent book[1] by Hockett and Jacobsen is designed to bring practical helps on classroom situations "to teachers in their daily work and to prospective teachers who seek to understand the how and the why of modern education. . . . . The attempt throughout the book has been to weave together theory and practice, so that the justification and application of educational principles are presented simultaneously. The point of view is that of the modern organic conception of learning" (p. iii). The

[1] John A. Hockett and E. W. Jacobsen, *Modern Practices in the Elementary School*. Boston: Ginn & Co., 1938. Pp. vi+346. $2.60.

ten chapter titles are: "Current Trends in Elementary Education," "Organizing the Class for Living and Learning," "Developing a Unit of Work," "Managing the Daily Program," "Making the Most of the Environment," "Utilizing Children's Latent Creative Abilities," "Making Discipline Educative," "Meeting Individual Needs," "Meeting the Needs of Unusual Children," and "The Teacher's Resources."

In the Preface to the book the authors say that questions and problems raised by large numbers of teachers were recorded and classified as a means of determining the scope and the nature of the material to be included. Completed chapters were submitted to teachers, supervisors, and principals for criticism and suggestion before final publication. The book bears every evidence that its content is really built around the questions which classroom teachers ask about the practical application of modern theories in elementary education. In fact, the book strikes so directly at the questions and the problems of classroom teachers of today that the reviewer was delighed with it. The practical treatment of urgent classroom problems is supplemented with a number of splendid photographs showing children at work in the kind of educational program encouraged by the authors.

The book will be criticized by some because it is not so inclusive as might be desired, but it should be remembered that the authors did not attempt an all-inclusive treatment of elementary-school teaching. The reviewer's main criticism is that the book is not so helpful as it might be to teachers who are in the early stages of the transition from the "subject-minded" school to the "child-development" school. The majority of elementary-school teachers in the country today are still in the early stages of that transition. These teachers are eager for help on their problems, and someone should give them the kind of assistance that Hockett and Jacobsen have given to those who are a little farther along in the transition.

HENRY J. OTTO

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EDUCATIONAL PSYCHOLOGY, CONSERVATIVE AND COMPREHENSIVE.—The Macmillan Company, through Professors Douglas and Holland, gives us another book[1] on educational psychology—a book which merits serious consideration. It is divided into four parts: (1) "The Subject Matter and Scientific Bases of Educational Psychology," (2) "Environment and Heredity," (3) "Learning," and (4) "Measurement in Educational Psychology."

The treatment of each of these four heads consists, for the most part, in a review of classical experimentation, with inferential discussion. The chapter on "Bodily Structures and Their Functions" is especially well written and well il-

[1] O. B. Douglas and B. F. Holland, *Fundamentals of Educational Psychology*. New York: Macmillan Co., 1938. Pp. xvi+598. $2.50.

lustrated. The authors have been unusually successful in translating the technical findings of experimentation into language that students can understand.

Both educational measurement and the statistics of measurement are treated —a combination which will probably make the book attractive in schools that do not have separate measurement courses in their training cycle. These chapters are probably desirable therefore, although many of the recent textbooks in educational psychology are omitting them. On the other hand, Douglas and Holland omit, or treat slightly, such topics as "personality training," "psychology of study," and "mental hygiene," which seem to be in increasing favor with authors in the field and in demand by students in the courses.

Attention should be called to one other matter: a comparative paucity of illustrations from actual classroom situations, combined with a reliance on the student's inferential ability which borders on the optimistic. This criticism, if it be such, many of the rest of us have deservedly shared in the past and probably shall share in the future. When they are writing textbooks, college professors seem to find it difficult to forget their colleagues.

The format, as always with the Macmillan Company, is excellent. The Index, complete in every detail, is above criticism. The documentation is, in general, well chosen and complete although the last decade is a little too sparsely represented and the publishers of books are not given.

FRANCIS F. POWERS

University of Washington

VARIED CONTENT IN A "WORK-TYPE" READER.—A recent publication[1] contains much material of interest. It is a reader of the work type intended for use in the early middle grades in teaching the reading skills needed in history, geography, etc. The twenty-six chapters cover a wide range of subjects. The illustrations are in black and white, many of them photographs.

The book is uneven as to difficulty. Some of the stories are very readable and would captivate a fourth-grade pupil, for example, chapter vi, "An Early Voyage down the Ohio River"; chapter viii, "Schools of Olden Times"; chapter xiv, "American Children in Alaska"; and chapter xxii, "Why and How Animals Sleep."

The authors stress the use of the dictionary for explaining difficult vocabulary, and they provide some definite instruction to aid the child to help himself. Such words as "library," "market," and "cowboy" are defined, while "limestone deposits," "clouded hills," and "natural advantages" are left to inference. The latter illustrations are taken from chapter vii, "How Pittsburgh Grew." This story is particularly difficult, and one statement in the check test for the story reads: "Pittsburgh owes the development of its industries principally to ———." Such abstractions are far removed from the experience and the vocab-

[1] Gerald A. Yoakam, William C. Bagley, and Philip A. Knowlton, *Reading To Learn*, Introductory Book. New York: Macmillan Co., 1938. Pp. x+390. $0.88.

ularies of pupils in the early middle grades. There are other difficult chapters, particularly the last three. It is suggested that this fine content be used with discrimination, the more advanced stories being reserved for use in Grade VI.

HELEN E. RICHARDSON

University Elementary School
University of Chicago

ARTICULATING SOCIAL AND NATURAL SCIENCES.—Anyone interested in the fusion of social and natural sciences in the elementary school can turn with profit to the series of books under review.[1] Not less than seven authors have participated in the enterprise, and five illustrators are recognized by the placement of their names on title-pages. Both in the Preface and in the content these authors reveal a central interest in a happy fusing of natural science and the good civic behavior of children for which schools continuously strive. It is quite possible that the series will not meet with the full approval of the uncompromising protagonist of the social studies as the core of the curriculum, and doubtless some of the very positive devotees of the natural sciences will find a certain thinness in some of the materials dealing with elementary aspects of these sciences. Many a pedagogical tilt has taken place over such issues, and because of their nature—and, perhaps one may add, because of the meticulous nature of certain pedagogues—such tilting matches will, in all probability, take place in the future. The reviewer, however, is not deeply concerned about such differences. He is vitally concerned that new offerings for the elementary school shall tap and fuse the materials of these fields in a process of wholesome living within the schools. An interest in, and a knowledge of, animal life, if properly developed, can contribute much to happy and successful social living.

This seven-book series opens with the primer *Fuzzy Tail*, and a most attractive primer it is. The illustrations are particularly good and do their full share in carrying the theme of the book. The element of surprise is cleverly used, and interesting developments in the adjustments of all the members of the family through the coming of Fuzzy Tail are well brought out. Due concern has been given to vocabulary problems, short phrases, and repetition. Indeed, this primer may well stand on its own merits apart from the series. *Sniff* holds the center of the stage in Book I, which is a good dog tale giving wise counsel in keeping and caring for a dog. There is a cordial and subtle emphasis on good

[1] Our Animal Books: A Series in Humane Education. Edited by Frances E. Clarke. Primer, *Fuzzy Tail* by Arensa Sondergaard, pp. vi+134, $0.72; I. *Sniff* by James S. Tippett and Martha Kelly Tippett, pp. vi+184, $0.80; II. *Pets and Friends* by Emma A. Myers, pp. vi+186, $0.84; III. *The Pet Club* by Kathrine W. Masters, pp. viii+224, $0.92; IV. *On Charlie Clarke's Farm* by Katharine L. Keelor, pp. vi+196, $0.72; V. *Our Town and City Animals* by Frances E. Clarke and Katharine L. Keelor, pp. vi+218, $0.76; VI. *Paths to Conservation* by James S. Tippett, pp. xii+300, $0.88. Boston: D. C. Heath & Co., 1937.

human behavior toward pets. Book II, *Pets and Friends*, attempts to extend interests and information concerning household pets. It lacks something of the buoyancy of the preceding volumes but must, nevertheless, be rated an attractive book. *The Pet Club*, Book III, is more nearly a "nature reader" than any other book in the series. Interesting sketches of a number of animals are given and, with them, helpful suggestions on care and diet. Book IV, *On Charlie Clarke's Farm*, describes the experiences of Charlie and his family as they move from the city to grandfather's farm where Charlie's father had lived as a boy. *Our Town and City Animals*, Book V, strikes a neglected chord in developing an interest in animals living within towns and cities. Some of the attractive topics included are: "The Pet Show," "Abandoned Animals," "The Seeing Eye," "The Winter Bread Line," and "The Jack London Club." One chapter is given to the important topic, "Books on Animals." The last book of the series is entitled *Paths to Conservation*. The contents are true to the title of the volume and include many items that do not logically come within the title for the series, "Our Animal Books."

The title of the series, however, seems narrow in the light of the nature of the materials. Possibly this title is the weakest phase of the series. Many of the best aspects of the materials are social in character, and not all are closely identified with animals. Fortunately each book can stand on its own merits without relation to other volumes in the series. In physical makeup, type, illustrations, and careful preparation of textual materials, the series represents good book-making. The last volume may be a bit heavy for some sixth-grade classes, but its value in seventh- or eighth-grade groups should not be overlooked. On the whole, all persons responsible for the enterprise may take satisfaction in the thought that they have made a contribution to life as it should be in the modern elementary school.

CLYDE B. MOORE

Cornell University

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CURRENT PUBLICATIONS RECEIVED

GENERAL EDUCATIONAL METHOD, HISTORY, THEORY AND PRACTICE

BEDFORD, JAMES H. *Youth and the World's Work: Vocational Adjustment of Youth in the Modern World.* Los Angeles, California: Society for Occupational Research, Ltd. (University of Southern California Station), 1938. Pp. viii+140.

BOND, EVA. *Reading and Ninth Grade Achievement.* Teachers College Contributions to Education, No. 756. New York: Teachers College, Columbia University, 1938. Pp. x+62. $1.60.

The Book of Major Sports. William L. Hughes, editor and collaborator. "Football" by W. Glenn Killinger; "Basketball" by Charles C. Murphy; "Base-

ball" by Daniel E. Jessee; "Track and Field" by Ray M. Conger. New York: A. S. Barnes & Co., Inc., 1938. Pp. 396. $3.00.

Business as a Social Institution. Proceedings of the University of Chicago Conference on Business Education, 1938. Chicago: University of Chicago Press, 1938. Pp. viii+120. $1.00.

CASSIDY, ROSALIND. *New Directions in Physical Education for the Adolescent Girl in High School and College: A Guide for Teachers in Co-operative Curriculum Revision.* New York: A. S. Barnes & Co., Inc., 1938. Pp. xvi+232. $2.50.

CHRISTIANSON, HELEN. *Bodily Rhythmic Movements of Young Children in Relation to Rhythm in Music: An Analytical Study of an Organized Curriculum in Bodily Rhythms, Including Potential and Functioning Aspects in Selected Nursery School, Kindergarten, and First Grade Groups.* Teachers College Contributions to Education, No. 736. Series in Curricula for Child Growth. New York: Teachers College, Columbia University, 1938. Pp. x+196. $2.10.

EWING, IRENE R., and EWING, ALEX. W. G. *The Handicap of Deafness.* New York: Longmans, Green & Co., 1938. Pp. xii+328. $5.40.

HAGGERTY, HELEN RUTH. *Certain Factors in the Professional Education of Women Teachers of Physical Education.* Teachers College Contributions to Education, No. 741. New York: Teachers College, Columbia University, 1938. Pp. viii+88. $1.60.

HENRY, NELSON B., and KERWIN, JEROME G. *Schools and City Government: A Study of School and Municipal Relationships in Cities of 50,000 or More Population.* Chicago: University of Chicago Press, 1938. Pp. xii+104. $1.50.

JENSEN, ARNE S. *Psychology of Child Behavior.* New York: Prentice-Hall, Inc., 1938. Pp. xxii+664. $3.85.

LAMBERT, ASAEL C. *School Transportation.* Stanford University, California: Stanford University Press, 1938. Pp. xiv+124. $3.00.

LANE, ROBERT HILL, with GERTRUDE M. ALLISON, ETHELYN BISHOP, and DOROTHY JOHNS MCNARY. *The Progressive Elementary School: A Handbook for Principals, Teachers, and Parents.* Boston: Houghton Mifflin Co., 1938. Pp. x+198+xii. $1.90.

MCLEAN, DONALD. *Knowing Yourself and Others: Mental Hygiene for Young People.* New York: Henry Holt & Co., 1938. Pp. xx+276. $1.40.

MILLER, DAVID F., and BLAYDES, GLENN W. *Methods and Materials for Teaching Biological Sciences: A Text and Source Book for Teachers in Training and in Service.* New York: McGraw-Hill Book Co., Inc., 1938. Pp. xii+436. $3.50.

MURRAY, JOSEPHINE, and BATHURST, EFFIE G. *Creative Ways for Children's Programs.* New York: Silver Burdett Co., 1938. Pp. xiv+396.

NOBLE, STUART G. *A History of American Education.* New York: Farrar & Rinehart, Inc., 1938. Pp. xvi+440. $2.50.

Objectives and Problems of Vocational Education. Edited by Edwin A. Lee. New York: McGraw-Hill Book Co., Inc., 1938. Pp. x+476. $3.50.

On Going to College: A Symposium. New York: Oxford University Press, 1938. Pp. 298. $2.50.

PICKETT, HALE. *An Analysis of Proofs and Solutions of Exercises Used in Plane Geometry Tests.* Teachers College Contributions to Education, No. 747. New York: Teachers College, Columbia University, 1938. Pp. 120. $1.60.

POWERS, FRANCIS F.; MCCONNELL, T. R.; TROW, WILLIAM CLARK; MOORE, BRUCE V.; and SKINNER, CHARLES E. *Psychology in Everyday Living.* Boston: D. C. Heath & Co., 1938. Pp. x+512. $2.75.

The Purposes of Education in American Democracy. Washington: National Education Association of the United States and the American Association of School Administrators, 1938. Pp. x+158. $0.50.

SIMPSON, RAY H. *A Study of Those Who Influence and of Those Who Are Influenced in Discussion.* Teachers College Contributions to Education, No. 748. New York: Teachers College, Columbia University, 1938. Pp. 90. $1.60.

STANTON, MILDRED B. *Mechanical Ability of Deaf Children.* Teachers College Contributions to Education, No. 751. New York: Teachers College, Columbia University, 1938. Pp. viii+66.

THORPE, LOUIS P. *Psychological Foundations of Personality: A Guide for Students and Teachers.* New York: McGraw-Hill Book Co., Inc., 1938. Pp. xvi+602. $3.50.

UPDEGRAFF, RUTH; DAWE, HELEN C.; FALES, EVALINE E.; STORMES, BERNICE E.; and OLIVER, MARY G. *Practice in Preschool Education.* New York: McGraw-Hill Book Co., Inc., 1938. Pp. xvi+408. $3.00.

WATERHOUSE, RALPH H. *Training Elementary-School Principals.* Publication No. 39. Akron, Ohio: Akron Board of Education, 1938. Pp. viii+82.

WATSON, GOODWIN; COTTRELL, DONALD P.; and LLOYD-JONES, ESTHER M. *Redirecting Teacher Education.* New York: Teachers College, Columbia University, 1938. Pp. x+106. $1.35.

WRIGHTSTONE, J. WAYNE. *Appraisal of Newer Elementary School Practices.* New York: Teachers College, Columbia University, 1938. Pp. xiv+222. $2.25.

BOOKS PRIMARILY FOR ELEMENTARY-SCHOOL TEACHERS AND PUPILS

Alice and Jerry Books: Reading Foundation Series. *Happy Days* by Mabel O'Donnell, pp. 32, $0.24; *Here We Go*, pp. 48, $0.32; *Guidebook for Teachers on Initial Stages of Reading Readiness*, pp. 176, by Emmett A. Betts and Mabel O'Donnell. Evanston, Illinois: Row, Peterson & Co., 1938.

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